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The October *Review*

The "New Economy" and its star icon, the Internet, have quite rapidly created a boom, at least in the economic analysis business. Until now, the most visible sign of this boom in the *Review* has been the increasingly frequent treatment of new-economy-oriented papers in the Précis department. Now, Peter Kuhn and Mikal Skuterud have brought an analysis of the Internet's labor market impacts to the articles section of the magazine. Among their findings, about 15 percent of unemployed jobseekers use the Internet to look for a position, as do about 7 percent of employed workers. Also, it was much more common to search from home than outside one's residence, even among those looking to change jobs.

Economic statistics can be a subtle art. Differences in survey design, sample selection, and even respondent interpretation of concepts can lead to measured differences between what should be very similar series. Anthony J. Barkume and Michael K. Lettau investigate one such case: the 5.8-percent difference between two sets of estimates of the average hourly earnings of workers in the service-producing sector. They find that excluding "working supervisors" (those with only incidental supervisory duties) from the Employer Cost for Employee Compensation program's estimates of hourly earnings reduces, but does not eliminate, the discrepancy with the average hourly earnings estimates from the Current Employment Statistics program.

Workers aged 55 and older are an increasingly important source of potential labor supply. As Patrick J. Purcell notes, the 78 million baby-boomers now make up about 55 percent of the population aged 25 to 54. He goes on to say that the sheer size of this cohort implies significant labor force impacts if this generation either retires earlier or remains in the labor force longer than earlier generations.

The article by Melvin M. Brodsky catalogs the attempts of several members of the Organization for Economic Cooperation and Development (OECD) to develop effective public-service employment programs. Some studies have suggested that such programs may be a useful strategy for helping many of the unskilled and less well educated among the long-term unemployed.

CPI corrected

There were revisions to the Consumer Price Index (CPI) to correct an error discovered in the software used to calculate the residential rent and owner's equivalent rent components of the index. The recalculated data were evaluated in the context of Bureau of Labor Statistics guidelines for issuing corrections to previously published CPI data.

Although the corrections were large enough to require re-publication, the general pattern of consumer price behavior this year was little affected. From December 1999 to August 2000, for example, the U.S. average Consumer Price Index for All Urban Consumers (CPI-U) rose 2.7 percent based on corrected data, compared with 2.6 percent as originally published.

Revisions were published for both the CPI-U and the Consumer Price Index for Urban Wage Earners and Clerical Workers (CPI-W) for the U.S. City Average, All Items Index, as well as selected lower-level indexes. Corrected indexes and additional information are available on the BLS website: **http://stats.bls.gov/cpihome.htm**.

Elders give more

The 65-and-older age group allocated more of their expenditures to cash contributions in 1998 than other age groups did. "Cash contributions" include cash given to persons outside of the household, charities, churches, and other organizations.

Cash contributions by households headed by someone aged 65-and-older amounted to 6.2 percent of their total expenditures in 1998. This figure is about twice as high as the 2.9 percent given by the 35- to 64-year-old group and more than three times as high as the 1.8 percent given by the under-35 age group.

The share allocated to cash contributions is highest for the 65-and-older group, as is the level. This group contributed $1,529 on average in 1998, compared with $1,232 for the 35-to-64 group and $536 for the under-35 set.

Multifactor productivity up in 1998

Multifactor productivity—measured as output per unit of combined labor and capital inputs—increased by 1.5 percent in the private nonfarm business sector in 1998. This was the seventh consecutive year of growth.

Output rose at its fastest rate since 1984, 5.2 percent. The growth of combined units of capital and labor inputs, 3.7 percent, was slower than in 1997, but faster than the average for the 1990s.

Labor input grew 2.7 percent in 1998; most of this growth was due to increased employment. Capital services continued to accelerate, jumping 5.6 percent, the largest gain since 1974. The fastest growing components of capital services were equipment and inventories. Additional information is available in "Multifactor Productivity Trends, 1998" news release USDL 00–267.

Foreign wages compared

Average hourly compensation costs in U.S. dollars for manufacturing production workers in 28 foreign economies remained at 79 percent of the U.S. level in 1999. Wages in these economies, taken as a group, had declined in the previous 3 years.

Although costs in Europe and Canada continued to decline relative to the United States, compensation costs in Mexico, Japan, and the Asian newly industrializing economies (NIEs) of Hong Kong, Korea, Singapore, and Taiwan increased at a faster rate than in the United States. □

Job search methods: Internet versus traditional

In 1998, 15 percent of unemployed jobseekers used the Internet to seek jobs, as did half of all jobseekers with online access from home; Internet search rates exceeded those of such traditional methods as the services of private employment agencies, contacting friends or relatives, and using the registers of unions or professional organizations

Peter Kuhn
and
Mikal Skuterud

In the current "e-commerce" boom, much attention has been paid to how the Internet is transforming product markets. At the same time, the Internet also is transforming labor markets, altering the way workers look for jobs, and the way firms recruit workers. More than 2,000 Internet job search sites now exist, yet little is known of their effects on labor markets.[1] What percentages of unemployed (and employed) Americans use the Internet to search for jobs?

This article examines the frequency and incidence of Internet job search among U.S. workers, by race, gender, and other demographic characteristics, the location of the job search (from home, from work, or from other access points), and the relation between Internet search and traditional job search methods. Internet job search data are from a special supplement to the December 1998 Current Population Survey (CPS), which asked respondents about computer and Internet use.[2] The traditional job search methods are from the monthly CPS, where they are used by the BLS to determine if a respondent is an active jobseeker.[3] The nine traditional methods are:

- Contacted employer directly
- Contacted public employment agency
- Contacted private employment agency
- Contacted friends or relatives
- Contacted school employment center
- Sent résumés/filled applications
- Checked union/professional registers
- Placed or answered ads
- Used other active search methods

Note that there is a possibility of overlap between search for a job via the Internet and the traditional methods outlined in the CPS. For example, unemployed jobseekers who say they "contacted employers directly" may have done so through the Internet, perhaps submitting a résumé via e-mail (Internet search) or they may have actually mailed or personally delivered a copy of the résumé to potential employers (traditional search).

Labor force status and location

The Internet and Computer Use Supplement to the December 1998 CPS asked respondents if they or anyone in their household used the Internet for any of a variety of purposes, including job search. Respondents were also asked where they conducted their Internet job search—from home, work, or some other site. All of our discussion of these statistics pertains to the adult, civilian, noninstitutional popula-

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Table 1. Internet job search rates and computer/Interet access by labor force status, December 1998

[In percent]

Item	Total	Employed		Unemployed		Not in the labor force		
		At work	Absent	On layoff	Jobseeker	Retired	Disabled	Other
Internet use for job search								
Internet job search from:								
Home	4.0	5.2	5.4	2.9	11.0	0.3	1.1	2.6
Outside the home	1.8	2.3	2.1	1.9	4.6	.0	.4	1.4
Any source	5.5	7.1	7.0	4.8	15.0	.3	1.4	3.8
Computer/Internet access								
Persons with a computer in the household	46.9	54.6	52.6	30.5	37.5	22.3	20.3	49.1
Persons with Internet access from home[1]	29.4	34.7	33.9	16.5	22.3	12.2	10.5	31.9
Persons using the Internet (for any reason) from:								
Home	23.6	28.6	27.4	13.1	18.7	7.5	6.1	24.7
Work	12.0	18.8	12.4	.0	.0	.0	.0	.0
Other locations	4.5	4.1	4.9	8.6	11.4	1.0	2.1	9.6
Any location	34.3	42.6	39.2	21.7	30.1	8.5	8.2	34.3
Internet job search rates among those with access[2]								
Computer in household	10.1	11.2	12.2	9.5	31.2	1.3	6.1	6.5
Internet access from home	14.6	15.9	16.6	17.6	49.5	2.3	10.4	9.0
Internet use from home	18.0	19.1	20.4	22.2	59.1	3.7	17.7	11.3
Internet use at any location	16.1	16.7	17.9	22.0	49.9	3.5	17.3	11.2

[1] The respondent lives in a household in which someone uses the Internet from home.
[2] Refers to Internet job search from any location. The data are computed by dividing the "Internet use for job search" rate by the "computer/Internet access" rate.

tion. Thus, individuals aged 15 or younger were dropped from our sample, as were adults serving in the Armed Forces.

Perhaps unsurprisingly, Internet job search is more common among unemployed jobseekers (that is, unemployed workers who are not "on layoff") than in any other labor force status group. (See table 1.) In December 1998, about 15 percent of unemployed jobseekers used the Internet to look for a new job. This percentage exceeds the proportion of unemployed jobseekers who used six of the nine traditional methods listed in the basic CPS monthly survey.[4] These six methods are: contacted private employment agencies, contacted friends/relatives, contacted school/university employment centers, checked union/professional registers, placed or answered ads, used other active search methods.

While Internet job search is most common among the unemployed, it also is substantial among the employed.[5] In December 1998, about 7 percent of employed workers searched for new jobs using the Internet. While this may not appear to be a large proportion, it exceeds all published estimates of on-the-job search (via all methods combined) of which we are aware. In particular, Carl Rossenfeld, using a special supplement to the May 1976 CPS, reported that 4.2 percent of workers who had been employed for at least 4 weeks said they were currently searching for a job.[6] Matthew Black, using data from the Panel Survey of Income Dynamics, reported in 1981 that 5 percent of employed men looked for work. In another study, C. A. Pissaridies and J. Wadsworth reported in 1994 that 5.3 percent of employed British men actively searched for work.[7] Published statistics from the Canadian Labor Force Survey (which, up to 1995, regularly asked employed workers if they searched for another job in the last 4 weeks) show an average annual rate of 5.2 percent for the years from 1990 to 1995, with little year-to-year variation.[8] As these statistics predate widespread use of the Internet for job search, they are consistent with the notion that the Internet has raised the fraction of employed workers who are looking for a new job in the economy.[9]

Internet job search is lower among persons out of the labor force compared with persons in the labor force—that is, persons who are employed or unemployed. However, if the retired or disabled are excluded from the calculations, 3.8 percent of nonparticipants regularly look for jobs on the Internet, a figure that compares favorably with the non-Internet search rates found among employed workers in the studies discussed above. Finally, regardless of labor force status, most Internet job search occurs from home. Of employed persons looking for work online, only 32 percent searched from a nonhome site. Even though unemployed jobseekers do not have the option of accessing the Internet from a workplace, 30 percent of this group used a nonhome site as well.

Further detail on Internet job search among unem-

ployed jobseekers is obtained by disaggregating that group according to their reason for being unemployed. (See table 2.) As shown, Internet job search is most frequent among job losers, of whom about 1 in 5 used the Internet to look for work in December 1998. Perhaps surprisingly, the lowest use rates are among persons entering the labor force. To the extent these new entrants are younger, one might expect them to have higher use rates (see, for example, table 6). The relatively low use rates among persons whose temporary job ended also is surprising, as one might expect workers on a series of temporary jobs to make greater investments in job search technologies than other workers. Again, regardless of the reason for unemployment, most Internet search occurs from home.

Given the preponderance of the home as the main location for conducting an online job search, one might conjecture that access to the Internet from home is a key determinant of whether an individual searches for jobs online. About 55 percent of employed persons had a computer in their home in December 1998, compared with 38 percent of unemployed jobseekers.[10] (See table 1.) Home Internet access is less common, at 35 percent of those employed and at work, 22 percent of unemployed jobseekers. Given access from home, 82 percent of employed persons, and 84 percent of unemployed jobseekers actually use the Internet from home. At the same time, access from home is far from a prerequisite for Internet use, even for the unemployed and for nonparticipants in the labor force, who do not have the option of access from work. In fact, the proportion of unemployed jobseekers using the Internet—at 30 percent— substantially exceeds the proportion with Internet access from home—22 percent. The same is true, although much less dramatically, for persons not in the labor force who are not retired or disabled.

Table 1 also presents Internet job search rates (from any location) conditional on three alternative measures of computer or Internet access. Especially for unemployed jobseekers, these rates are much higher than the unconditional rates. For example, almost half (49.5 percent) of unemployed jobseekers who had home Internet access used the Internet to look for work. Almost 60 percent of unemployed jobseekers who used the Internet at home looked for work online. This high conditional use rate explains the fact that even though the unemployed were less likely to have access to the Internet, they were more likely to search online for jobs than were other workers.

Table 2. Jobseekers using the Internet for job search by labor force status, December 1998

[In percent]

Characteristic	Internet job search from:		
	Home	Outside home	Any location
Job loser	15.8	4.5	19.6
Temporary job ended	9.4	4.3	13.7
Job leaver	12.4	5.6	17.0
Re-entrant	8.3	4.5	12.5
New entrant	5.1	3.5	7.9

NOTE: The category "Any location" is important, because it is not just the sum of the other two rows, for there is overlap between them.

Table 3. Internet access points for unemployed jobseekers who used the Internet for job search, December 1998

[In percent]

Location of search	Total	With Internet access at home[1]	Without Internet access at home
Home	73.6	100.0	0.0
School:			
Kindergarten to grade 12	3.3	1.1	9.5
Other grades	7.1	4.2	15.3
Public library	9.0	3.4	24.4
Community center	1.3	.0	5.0
Someone else's computer	15.1	4.6	44.6
Other	7.0	3.5	16.8

[1] The individual lives in a household in which someone uses the Internet from home.

Jobseekers were asked their source of Internet access, 15 percent of whom reported using the Internet for job search. Of this group, 74 percent reported using the Internet from home. (See table 3.) Very few of those with home access used any other access site. But what of the unemployed who (by definition) cannot access the Internet from work, and do not have home access? According to the data, by far the most common access point for these individuals is "someone else's computer," at nearly 45 percent of searchers. Public libraries and a college or university are the next most common access sites. Schools at the kindergarten to grade12 level and community centers play relatively minor roles, smaller in both cases than the residual, "other" category. Presumably, an individual who conducted online search from a computer terminal in a public employment agency would be categorized under "other." If so, these figures indicate that public employment agencies play a smaller role than informal social networks ("someone else's computer") or public libraries in providing physical access to the Internet for unemployed workers' job search.

Approximately 19 percent of workers who used the Internet at work also used the Internet to look for a new job—historically, a very high rate of on-the-job search. (See table 4.) Less than half of these (45.5 percent), however, conducted this online job search from outside their homes. While it cannot be precisely determined what

proportion of employed workers looked for jobs online from their work site, the final row of data in table 4 provides a lower bound to this number. Overall, 7.6 percent of employed workers searched online from a nonhome location, and did not use a nonwork location either. Put another way, the final column of table 4 indicates that at least 1 in 5 employed workers who looked for jobs online did so from a computer at their workplace.

The 'digital divide'

Is there a "digital divide" along racial, ethnic, or gender lines in Internet job search? The percentage distribution among racial and ethnic characteristics clearly indicates that divisions do exist. Only 7 percent of unemployed Hispanic jobseekers looked for jobs online in December 1998, compared with 9 percent of blacks and more than 16 percent of whites. (See table 5.) Unemployed black and Hispanic workers are taking advantage of the job search resources of the Internet to a much smaller degree than unemployed whites. These ethnic and racial gaps are less pronounced among employed persons, with online search rates at 4 percent for Hispanics, 6 percent for blacks, and 7 percent for whites. The gender divide is not nearly as stark as either the racial or ethnic ones. Internet job search among unemployed women equalled that of unemployed men: both were about 15 percent. Among employed female jobseekers, 6.5 percent were looking for work online in December 1998, compared with 7.6 percent of employed men.

Is the racial and ethnic divide in Internet job search driven primarily by differential access to technology, or by differential use of technology conditional on access? This issue is addressed by presenting disaggregated measures of access and conditional use. (See table 5.) By any measure and in all labor force categories, blacks and Hispanics have less access to computers and the Internet. Only 20 percent of unemployed black and Hispanic jobseekers have a computer in their household, compared with 40 percent of unemployed white jobseekers. Internet access from home is even more unequally distributed, at 7.5 percent of unemployed Hispanic jobseekers, compared with 10.4 percent for blacks and 25.4 percent for whites. Similar, but less dramatic, gaps are evident among other labor force categories. Gender gaps in access are comparatively, and uniformly, very small.

Another finding to emerge from the data: conditional on most measures of access, and within most labor force categories, blacks and Hispanics are more likely than whites to use the Internet for job search. The difference is particularly dramatic for blacks, and among unemployed jobseekers. Conditional on Internet access from home, 64 percent of unemployed blacks use the Internet to look for work, compared with only 48 percent of whites. Conditional on using the internet (for any reason and from any location), slightly more than 51 percent of both black and Hispanic unemployed jobseekers use it to look for work, compared with 49.6 percent of whites. Among employed persons who use the Internet (from any location), 23 percent of blacks use it to look for work, compared with 19 percent of Hispanics and 16 percent of whites. Again, the gender gap in conditional use is small. There is, however, some indication that, conditional on access, employed men are more likely than employed women to use the Internet to look for a new job. These data suggest that the ethnic and racial gap in Internet job search among the unemployed is explained entirely by differences in access. Given equal access to the technology, both blacks and Hispanics are highly likely to use the Internet in their search for a new job.

Further details on the determinants of Internet job search are provided by the probit models reported in table 6. To preserve degrees of freedom, these regressions are performed for the sample of all employed and unemployed workers, although controls for labor force status are used. Persons not in the labor force are excluded from the sample. To illustrate the role played by access, three alternative specifications are reported: the specification in the first two columns does not control for access, while the specifications reported in the remaining columns control for the presence of a computer in the household or for Internet access from home. As before, the dependent variable is whether the individual regularly conducted Internet job search from any location. For ease of interpretation, coefficients are presented as predicted changes in the probability of Internet search, rather than the more commonly-reported probit index coefficients.

Table 4. Employed workers who use the Internet to search for jobs, by location of the search, December 1998

[In percent]

Location of search	All employed workers[1]	Employed workers who:		
		Use the Internet at work	Have Internet access at home[2]	Look for jobs online (from any location)
Used the Internet to search for jobs:				
From any location	7.1	19.1	16.0	100.0
From home	5.2	11.7	14.9	72.8
Away from home	2.3	9.0	2.1	32.2
Away from home, and did not report using only nonwork location	1.5	7.6	1.6	20.6

[1] Employed workers who are "at work" and "absent from work" combined.
[2] The individual lives in a household in which someone uses the Internet from home.

Table 5. Internet job search rates and computer/Internet access by labor force status and selected demographic characteristics, December 1998

[In percent]

Characteristic	Total	Employed		Unemployed		Not in the labor force		
		At work	Absent	On layoff	Jobseeker	Retired	Disabled	Other
Internet use for job search[1]								
White	5.6	7.1	6.8	4.9	16.5	0.3	1.7	3.9
Black	4.8	6.3	6.8	5.4	9.2	.1	.7	2.8
Hispanic	3.2	4.0	3.7	.0	7.2	.0	.3	2.0
Men	6.5	7.6	8.7	3.9	15.2	.4	1.8	5.7
Women	4.7	6.5	5.6	6.6	14.7	.2	1.1	3.1
Computer and Internet access								
Computer in the home								
White	49.3	57.2	54.6	32.8	41.7	23.2	23.5	52.8
Black	26.3	32.7	32.2	9.9	20.0	10.2	9.4	22.9
Hispanic	28.2	32.4	36.9	13.8	20.2	17.4	15.4	23.9
Men	48.4	54.8	53.6	28.6	38.6	25.0	21.1	50.4
Women	45.4	54.4	51.6	34.2	36.3	20.4	19.5	48.6
Internet access from home[1]								
White	31.4	36.9	35.7	18.5	25.4	12.9	12.5	35.0
Black	12.7	16.3	15.2	2.0	10.4	3.9	3.2	10.4
Hispanic	13.9	16.5	19.8	4.2	7.6	6.8	6.9	11.3
Men	31.0	35.7	34.6	15.8	23.3	13.8	11.2	32.6
Women	28.0	33.6	33.2	17.8	21.1	11.1	9.7	31.6
Internet use from any location								
White	36.1	44.6	41.3	22.9	33.2	9.3	9.8	37.0
Black	20.7	27.6	22.6	16.6	18.1	1.7	2.7	17.2
Hispanic	18.0	21.6	27.0	7.8	14.0	1.8	3.3	17.1
Men	36.2	42.5	38.8	22.0	31.0	10.5	8.3	41.4
Women	32.6	42.8	39.6	21.1	28.9	7.1	8.0	31.5
Internet job search rates among those with access								
Computer in the home								
White	9.9	11.0	11.4	9.6	31.2	1.3	6.8	6.4
Black	12.5	13.6	18.1	[2]	33.3	.8	1.2	6.5
Hispanic	8.4	9.6	10.1	[2]	20.5	.0	1.9	4.8
Men	11.8	12.4	15.2	9.6	30.9	1.7	7.7	9.8
Women	8.5	9.9	9.4	9.4	31.5	.9	4.4	5.2
Internet access from home[1]								
White	14.1	15.5	16.1	17.0	47.9	2.4	11.2	8.6
Black	20.7	21.4	[2]	[2]	64.0	2.0	[2]	11.0
Hispanic	15.5	16.7	[2]	[2]	[2]	.0	[2]	10.7
Men	16.8	17.5	20.6	17.4	48.5	3.0	12.2	13.3
Women	12.2	14.1	12.8	[2]	50.9	1.6	8.5	7.2
Internet use from any location								
White	15.4	16.0	16.6	21.2	49.6	3.5	17.1	10.6
Black	23.0	22.8	30.3	[2]	51.1	[2]	[2]	16.3
Hispanic	18.0	18.7	13.8	[2]	51.5	[2]	[2]	11.9
Men	17.9	18.0	22.3	17.6	49.1	4.1	21.0	13.9
Women	14.4	15.1	14.1	[2]	50.8	2.9	13.6	9.8

[1] The individual lives in a household in which someone uses the Internet from home.
[2] Data not shown where the base is less than 75,000.

Table 6. Probit estimates of the probability of Internet job search among labor force participants

Variable[1]	Access controls					
	None		Computer in household		Internet access at home[2]	
	Coefficient (dF/dX)	t-statistic	Coefficient (dF/dX)	t-statistic	Coefficient (dF/dX)	t-statistic
Primary school	–0.052	–9.39	–0.041	–7.57	–0.036	–7.04
Did not complete high school	–.052	–16.61	–.041	–14.27	–.036	–13.32
Completed high school	–.050	–19.56	–.036	–15.44	–.030	–13.61
Did not complete college	–.021	–8.44	–.015	–6.92	–.012	–5.94
Associate degree	–.013	–4.14	–.008	–2.81	–.004	–1.66
Married	–.012	–5.51	–.019	–9.83	–.019	–10.37
Male	.017	7.98	.013	7.12	.010	5.86
Black	–.004	–1.16	.009	2.68	.013	4.32
Hispanic	–.016	–4.54	–.006	–1.85	–.002	–.68
Northeast	–.005	–1.88	–.006	–2.52	–.006	–2.99
Midwest	–.004	–1.75	–.005	–2.11	–.003	–1.57
West	.014	5.02	.008	3.24	.006	2.71
Unemployed—looking for work	.117	16.04	.120	17.27	.113	17.50
Unemployed—on layoff	.021	1.42	.030	2.01	.029	2.09
Age in years						
16–25	.214	8.76	.163	7.71	.143	7.08
26–35	.193	8.84	.159	8.23	.142	7.64
36–45	.141	7.26	.106	6.32	.093	5.81
46–55	.120	6.05	.089	5.24	.076	4.73
56–65	.069	3.58	.051	3.09	.041	2.67
Computer in home	...	...	.063	30.02	...	...
Internet access in home	...	...	...	...	.101	43.31
Number of observations	62,246	...	62,246	...	62,246	...

[1] Omitted categories are "university degree," "not married," "females," "non-black," "non-Hispanic," "South," and "employed" for the various sets of dummy variables respectively. The regression also included sixteen dummy variables for the respondent's industry and thirteen for his/her occupation. For ease of interpretation, coefficients are presented as predicted changes in the probabilities of Internet search, rather than the more commonly reported probit index coefficients.

[2] The individual lives in a household in which someone uses the Internet from home.

The data (columns 1 and 2) show that Internet job search is about 5 percentage points lower among workers with high school education or less, than among college graduates. Online job search is less common among married people, and is more common among men and young people. Regionally, it is most common in the West. As controls for access are added to the data, the effects of education, age, and gender on use remain qualitatively the same, but somewhat smaller in magnitude: some of the difference in access is related to these three factors. When observable characteristics (but not access) are held constant, blacks are not significantly less likely than other racial groups to use the Internet for job search, but Hispanics are. Adding access controls eliminates the "digital job search divide" for Hispanics, and (as suggested in table 5) reverses it for blacks. Given access to the Internet, and controlling for ethnic differences in labor force status, blacks are more likely, and Hispanics are no less likely, to use the Internet for a job search than whites.

Internet versus traditional search methods

Motivated (at least in part) by a desire to understand the process by which unemployed workers become employed, the Current Population Survey has been collecting information about methods used to search for jobs since 1967. Clearly, the Internet, with its search capabilities and low-cost communications, has the potential to dramatically change the methods workers use to search for work. Some traditional methods, such as contacting friends and relatives, conceivably could be partly displaced by the Internet. Other traditional methods, such as sending résumés, could be complementary with the Internet, and could increase in use as the Internet expands.

The relation between Internet and traditional job search methods is investigated in two ways. First, for December 1998 only (the date of Internet job search question), we ask which of the traditional job search methods were overrepresented, and which were underrepresented, among persons conducting an online job search. Second, we examine trends that emerged in the use of traditional search methods for 1994 through 1999 for any "internet effect," using the December CPS files of each year. In both cases, our analysis is restricted to unemployed, active jobseekers only. This is because the CPS traditional search method questions pertain only to this group. The data begin with 1994, because earlier surveys used a different list of search methods.

The proportion of Internet and non-Internet jobseekers using each of the nine traditional methods listed in the basic monthly CPS in December 1998 is shown in table 7. (Note that to be classified as an unemployed jobseeker, an individual must report using at least one of these methods). While most of the differences between those who

searched online and those who did not are small, Internet searchers are more likely to use seven of the nine traditional search methods than are job searchers who do not search online. The two underrepresented methods among Internet searchers are "contacted firms directly" and "contacted friends or relatives," with a particularly dramatic difference in the former method. Among the methods that are substantially overrepresented among Internet searchers are "sent résumés," "placed or answered ads," and "used other active search methods."

One interpretation of the above results is that the Internet is complementary with most traditional search strategies. (It may even be the vehicle by which some searches are conducted, for example, sending out résumés and answering ads). Apparently, this complementarity extends even to public employment agencies, which are used by 25 percent of Internet searchers versus only 19 percent of jobseekers who do not use the Internet. Another possibility, however, is that jobseekers who use the Internet as a search method are a selected sample of persons who choose to look for work more intensely than other jobseekers. Indeed, the average number of traditional search methods reported by Internet users is 2.15, compared to 1.69 for non-Internet users.

If the patterns of relative method use in the 1998 CPS supplement reflect true complementaries or substitutabilities with Internet search, then those traditional methods which are overrepresented among Internet users should exhibit increasing use during a period of rapid Internet expansion, while other methods should show a decline in usage. To explore this issue, table 8 reports trends in the use of traditional search methods by unemployed jobseekers between 1994 and 1999. For reference, the table also presents data on trends in Internet access and labor market conditions. Clearly, this was a period of rapidly expanding Internet access, with overall Internet access almost quadrupling from 14 percent of adults in 1995 to 54 percent in 1999. As noted, however, Internet job search rates among unemployed jobseekers lagged far behind this trend, attaining only 15 percent by the end of 1998. As the unemployment statistics indicate, 1994–99 was also a period of continuous economic expansion. This makes it difficult to disentangle secular from cyclical effects, and the results must be viewed with this caveat in mind.

The table shows increases in the use of only two traditional search methods over the 1994–99 period: "sent résumés/filled applications" and "used other active search methods." Both methods were substantially overrepresented among Internet searchers in 1998, so some of the increased usage could be attributable to the growth of the Internet. This seems more likely for the "other active" category, which increased relatively constantly throughout the period. For "sent résumés," however, most of the increase occurred between 1994 and 1995, which is less suggestive of an Internet effect.

The remaining seven search methods declined in use over the period 1994–99.[11] Among these, two (contacted union/professional registers and school/university employment centers) are less popular methods, used by less than 3 percent of jobseekers in all years. Private employment agencies are also a lesser utilized method of job search, and a closer examination of the time trends for this method provides very little evidence of a secular decline. Of the four remaining methods for which usage declined, two—"direct employer contact" and "friends/relatives"—are consistent with the cross-sectional use patterns in the 1998 supplement. However, the decline in direct employer contact is very small, and could also be easily explained by the expanding economy of the late 1990s.[12] The other two—"placed/answered ads" and "public employment agencies"—declined despite being overrepresented among Internet searchers.

Clearly, further research with careful controls for macroeconomic conditions is required to fully understand recent changes in the mix of search methods over time. Even absent such research, however, it is very unlikely that the effects of the Internet on 1994–99 trends in traditional search methods were very large. One reason is simply that the cross-sectional patterns of methods used are not dramatically different between Internet users and nonusers. Another is that Internet search had only attained 15 percent of jobseekers by the end of 1998. Thus, most of the change is yet to occur.

It also seems unlikely that the decline in the use of public employment agencies observed in table 8 is driven by private, Internet competition. First, the observed decline in public agency use is confined to the last year of our sample. Second, recall that public agency use was actually overrepresented among Internet searchers in our 1998 cross-section data. Finally, one researcher documented a secular decline in the use of public employment agencies well before the late 1990s.[13] An Internet-

Table 7. Use of traditional search methods by Internet job searchers and non-Internet job searchers

[In percent]

Traditional search method	Internet job search		
	Total	No	Yes
Contacted employer directly	64.5	65.0	62.0
Contacted public employment agency	20.4	19.5	25.2
Contacted private employment agency	6.6	6.0	10.2
Contacted friends or relatives	13.5	13.8	11.9
Contacted school / university employment center	2.3	2.0	3.5
Sent out résumés / filled out applications	48.3	45.5	64.1
Checked union / professional registers	1.5	1.2	3.1
Placed or answered ads	14.5	12.7	24.5
Used other active search methods	4.4	3.4	10.1

Table 8. Trends in the use of traditional search methods, 1994–99

[In percent]

Traditional search method[1]	1994	1995	1996	1997	1998	1999
Contacted employer directly	67.4	65.1	64.7	67.3	64.5	65.1
Contacted public employment agency	20.4	20.1	18.9	19.1	20.4	15.9
Contacted private employment agency	7.2	7.1	7.5	6.6	6.6	7.0
Contacted friends or relatives	15.7	18.0	16.6	14.6	13.5	13.4
Contacted school employment center	2.3	1.9	2.3	2.7	2.3	1.6
Sent out résumés / filled out applications	40.2	46.9	48.3	46.6	48.3	47.6
Checked union / professional registers	2.7	2.4	2.5	1.7	1.5	1.9
Placed or answered ads	16.7	17.7	17.3	16.3	14.5	12.5
Used other active search methods	3.5	2.9	3.9	4.6	4.4	5.7
Internet diffusion measures						
Percent of adults online[2]	...	14	23	36	42	54
Percent of unemployed jobseekers searching for jobs online[3]	...	...	...	...	15	...
Civilian unemployment rate[4]	5.1	5.2	5.0	4.4	4.0	3.7

[1] Results are from the December CPS of each year.

[2] Data from 1995 to 1998 are from surveys conducted by the Pew Research Center for the People and the Press. See **http://www.people-press.org/tech98que.htm** (visited Oct. 5, 2000). Survey months are June, July, November and December respectively. 1999 data are for April and are from Bruce Bimber, "Information and Political Engagement in America: The Search for Effects of Information Technology at the Individual Level," unpublished paper, Department of Political Science, Univeresity of California, Santa Barbara, Feb. 11, 2000. See also **http://www.polsci.ucsb.edu/faculty/bimber/research/diffusion.html** (visited Oct 5, 2000).

[3] Data are from table 1.

[4] BLS unemployment statistics for December of each year. See **http://stats.bls.gov/top20.html** (visited Oct. 21, 2000).

induced demise in public employment agencies may yet occur, but does not appear to have been a major factor up to December 1999.

Online search a realistic option

The Internet is used by both the employed and unemployed to look for jobs. In December 1998, 13 percent of unemployed Americans, and 7 percent of employed Americans looked for a new job via the Internet. This proportion rises to 15 percent if the data are restricted to active jobseekers, that is, if unemployed persons who are not actively looking for work are excluded. Employed workers' Internet job search rate exceeds all estimates of employed job search (via all methods combined) of which we are aware, all of which were derived from periods before Internet search was a realistic option for the vast majority of the population.

Most Internet job search is conducted from home. For both the employed and unemployed, almost three-quarters of Internet jobsearchers conducted at least some of this search from a computer in their home. About 30 percent searched from a computer outside their home, and a small fraction (3 to 5 percent) searched from both locations. For unemployed jobseekers without Internet access at home, the most common access point was "someone else's computer," followed by a public library.

Because most Internet job search takes place in the home, overall use of this search method is highly conditioned by Internet access at home. For example, total Internet job search rates rise to 31 percent of unemployed jobseekers if attention is restricted to computer owners, and to almost 60 percent if looking only at unemployed jobseekers who use the internet at home. Among employed persons, Internet job search also rises with access: just under one-fifth (19 percent) of employees with access to the Internet at work use the Internet to search for a new job. At least 7 percent of them do so from a computer in their workplace.

There is, indeed, a racial and ethnic divide in Internet job search: among unemployed jobseekers, 16 percent of whites, 9 percent of blacks, and 7 percent of Hispanics used the Internet to look for a new job. Statistically, this gap is completely explained by differential access to technology: when data are restricted to computer owners, black jobseekers are more likely than white jobseekers to search online; when data are restricted to persons with Internet access at home, 64 percent of black jobseekers regularly look for work on the Internet, compared with 48 percent of whites. In short, there is absolutely no indication that given access to the technology, blacks or Hispanics are less inclined than whites to use the Internet for job search.

Rather than abandoning other methods of job search, unemployed jobseekers who search for jobs online are more likely than other jobseekers to use most traditional methods of job search as well. It is possible that online searchers are simply a selected sample of persons who search more intensely than others; in contrast, Internet search may genuinely be complementary with these other methods. The only search methods that are underrepresented among Internet searchers are "direct employer contact" and "friends and relatives."

Between 1994 and 1999, unemployed jobseekers expanded their use of only two job search methods—"sent résumés" and "other active"—and decreased their use of all other methods. While some of these changes may be partly connected to increased Internet search, it appears

unlikely that such an effect has been very large. One reason is simply that the cross-sectional patterns of method use noted above are not very different between Inernet users and nonusers; another is that Internet search had only attained 15 percent of unemployed jobseekers by December 1998. Finally, in some cases the time trends run in an opposite direction to what is suggested by cross-sectional patterns: use of public employment agencies declined during the 1994–99 period despite being overrepresented among Internet jobseekers in December 1998. Certainly, it is premature to conclude that the expansion of the Internet has caused a decline in the use of public employment agencies. □

Notes

[1] For a list of the sites, see **http://www.internetpost.com/Internetpost/AlphaList.html** (visited July 19, 2000).

[2] The questions on Internet job search were part of a series of longer questions about general Internet use. The December 1998 CPS Computer and Internet Use Supplement questionnaire is available online at **http://www.bls.census.gov/cps/computer/1998/smethdocz.htm** (visited Oct. 5, 2000).

[3] To be classified as an "active" jobseeker, the individual must report using at least one of the nine traditional search methods (see bulleted list on page 3).

[4] See table 6, column 3. The small differences between Internet search (15.0 percent) and "placed or answered ads" (14.5 percent), and between Internet search and "friends and relatives" are not, however, statistically significant (t-statistics for a test of zero difference are 0.44 and 1.23 respectively). The four remaining differences are highly significant.

[5] See Joseph R. Meisenheimer and Randy Ilg,"Looking for a better job: job-search activity of the unemployed," *Monthly Labor Review,* September 2000, pp. 3–14.

[6] Carl Rossenfeld, "The extent of job search by unemployed workers," *Monthly Labor Review,* March 1977, pp. 58–62. See also *"Looking for a job while employed,"* Bureau of Labor Statistics Report 97-14, November 1977.

[7] Matthew Black, "An Empirical Test of the Theory of On-the-Job Search," *Journal of Human Resources,* Winter 1981, pp. 129–40; C. A. Pissaridies and J. Wadsworth, "On-the-job search: some empirical evidence from Britain," *European Economic Review,* February 1994, pp. 385–401.

[8] The actual numbers for 1990–95 are 4.96, 4.99, 5.06, 5.42, 5.57, and 5.46 respectively (see Statistics Canada, *The Labour Force,* 1990–1995). The figure for December 1995, which is most directly comparable with our December 1998 CPS data, is 4.84. Examination of long-term trends in this series shows a secular increase, from 2.24 percent in 1977, most of which however occurs before 1989. Further information may be found by researching various issues of Statistics Canada, *The Labour Force,* 1977–1995, catalogue no. 71–001.

[9] Clearly, more recent U.S. data on job search by employed workers would constitute more convincing evidence on this point. We are not aware of any such data.

[10] When discussing statistics for the employed in what follows, we refer (unless otherwise indicated) to the employed and "at work." In almost all cases, the employed but "temporarily absent" are very similar to the employed.

[11] Contrary to what one might expect from a tightening labor market, this does not reflect a decrease in the number of methods used over the period in question. The average number of methods used, by year, were 1.76, 1.82, 1.82, 1.79, 1.75, and 1.71 from 1994 to 1999. Instead, large increases in the use of the two earlier methods seem to be counterbalanced by small decreases in all the rest.

[12] Michelle Ports documents this cyclical pattern in chart 3 of "Trends in job search methods, 1970–92," *Monthly Labor Review,* October 1993, pp. 63–67.

[13] *Ibid,* chart 2.

Replicate estimates of the average hourly earnings series

Average hourly earnings data are compared with similarly constructed measures ("replicates") based on employer costs for employee compensation data

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Average hourly earnings data, produced each month as part of the Current Employment Statistics (CES) program, have become an integral part of U.S. economic intelligence.[1] Besides their customary use in assessing the economic outlook, average hourly earnings data have been incorporated into a wide variety of analyses, such as simulations of the effects of policy changes (for example, the introduction of the North American Free Trade Agreement, NAFTA) on locality and industry earnings levels.

The CES program is based on employment, hours, and earnings data from a sample of nonfarm establishments, including government. However, the CES has always restricted the coverage of both earnings and jobs to those most likely to be reflected in employer's current payroll records on a regular basis.[2] Earnings coverage excludes "bonuses, commissions, and other lump-sum payments (unless earned and paid regularly each pay period or month)."[3] Job coverage (for the reporting of earnings) is restricted to production workers in goods-producing industries and nonsupervisory workers in the service-producing industries.

In recent years, several analysts[4] have noted that the trend rate of growth in the private industry aggregate of the average hourly earnings measure has been slower than that of other economy-wide average wage measures, such as those derived from unemployment insurance records or Current Population Survey data. The slower growth in the average hourly earnings relative to other aggregate earnings measures may simply reflect the restrictions on job coverage if the relative earnings of production and nonsupervisory workers have fallen relative to all workers over time. However, this divergence between the series may also reflect differences in how employers, who report payroll data in the CES, define "production and nonsupervisory" employees from what data users assume is the case. For example, employers are instructed to include earnings and hours data for "working supervisors," defined as workers whose supervisory duties are incidental to their job. But some employers may not include hours and earnings of working supervisors in their payroll records because such employers might consider those employees as supervisors in the organization. If working supervisors generally received above-average earnings, then an employer's omission of these earnings from their statistical reports would tend to reduce reported average hourly earnings.

Katharine G. Abraham, James R. Spletzer, and Jay C. Stewart constructed several "replicate estimates" for average hourly earnings concepts using CPS labor force data and different definitions for production and nonsupervisory workers.[5] The job coverage and wage levels of the replicate estimates were compared with the actual average hourly earnings series. For example, restricting job coverage to workers paid hourly, Abraham and others found that the replicate estimate from CPS data generally matched the trend of the actual average hourly earnings data, but that the job coverage and wage levels of this replicate

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Table 1. Earnings levels and job coverage of average hourly earnings and employer costs for employee compensation replicate estimates, March 1988 though September 1999

Job type	Actual average hourly earnings data[1]	Employer costs for employee compensation replicate of average hourly earnings[2]
All production and nonsupervisory jobs in private nonfarm industry:		
Average earnings (dollars per hour)	$11.09	$11.48
Job coverage (percent of sector employment)	82.1	86.1
Production worker jobs in goods production:		
Average earnings (dollars per hour)	$12.68	$12.48
Job coverage (percent of sector employment)	70.5	71.2
Nonsupervisory worker jobs in services production:		
Average earnings (dollars per hour)	$10.52	$11.12
Job coverage (percent of sector employment)	86.1	91.3

[1] From the Current Employment Survey.

[2] Standard job coverage.

estimate were both lower than the actual average hourly earnings data.

This article reports the results of additional research on the "replicate estimate" approach to investigate job coverage in average hourly earnings. We use earnings, hours, and detailed information on the types of jobs from the BLS employer costs for employee compensation program. Data from this program can produce earnings and employment estimates that are measured similarly to those produced for the average hourly earnings series. This article compares average earnings levels (in dollars per hour) for these employer costs for employee compensation replicates with the actual average hourly earnings series over the March 1988 to September 1999 period. We focus on long-term comparisons because differences in sample sizes and sample designs in the two data programs generate differences in short-term fluctuations. We also outline our methodology for constructing these estimates and indicate the limitations of the data for this purpose.

Our primary findings reveal that for the 1988–99 period as a whole, the earnings estimates produced by the employer costs for employee compensation replicates of average hourly earnings correspond fairly closely to the actual average hourly earnings series. For production workers in goods production (mining, manufacturing, and construction), the employer costs for employee compensation earnings replicate was on average 1.5 percent lower than the actual average hourly earnings for this group of workers—about $0.20 per hour lower, on average. For nonsupervisory workers in the rest of the private nonfarm economy, the employer costs for employee compensation earnings replicate was on average 5.8 percent higher than the actual corresponding average hourly earnings series—about $0.60 per hour higher on average. (The average dollar values for the estimates are displayed in table 1.) The earnings estimate for nonsupervisory workers from employer costs for employee compensation data is reduced when excluding jobs that have incidental supervisory duties (that is, excluding the higher pay of "working supervisors" in average earnings). Excluding "working supervisors" from the employer costs for employee compensation replicate for nonsupervisory workers reduces, but does not eliminate, the discrepancy with the actual average hourly earnings. These results indicate to us that factors other than job coverage may be contributing to the differences in worker pay between average hourly earnings and estimates of worker pay from other data sources.

Limitations of CPS-based replicates

The different frames of reference used by household members and employers when reporting on work hours and earnings complicate the use of replicate estimates from CPS labor force data to make inferences about the coverage of the average hourly earnings. An important problem is that hours *paid* is measured in the average hourly earnings series, while hours *worked* is measured in the CPS. However, consistent comparisons between the two series may be possible because the BLS Hours at Work Survey, which collects data on both hours paid and hours worked, shows that the ratio of hours worked to hours paid for production and nonsupervisory workers has not varied greatly over time.

Also, CPS labor force data provide limited historical information on multiple jobholders in the labor force. A particular problem with comparing job coverage in the in the CES with job coverage in the CPS (prior to the redesign of the CPS in 1994) stems from difficulties in identifying the occupations of all nonagricultural wage and salary jobs in the CPS before 1994. The average hourly earnings series is a measure of earnings for all production and nonsupervisory jobs but, prior to 1994, the CPS only obtained information on the "main" job of employed workers, with no regularly collected data available on any additional jobs that the worker held. Thus, Abraham and others restricted their analysis to workers whose main jobs were in the nonagricultural wage and salary sector. Agricultural wage and salary workers, the self-employed, and unpaid family workers who take second jobs in nonagricultural wage and salary employment were excluded.

Methodology

Data collection for the Employer Costs for Employee Compensation as well as the Employment Cost Index (ECI) is designed to obtain a representative sample of the jobs nation-

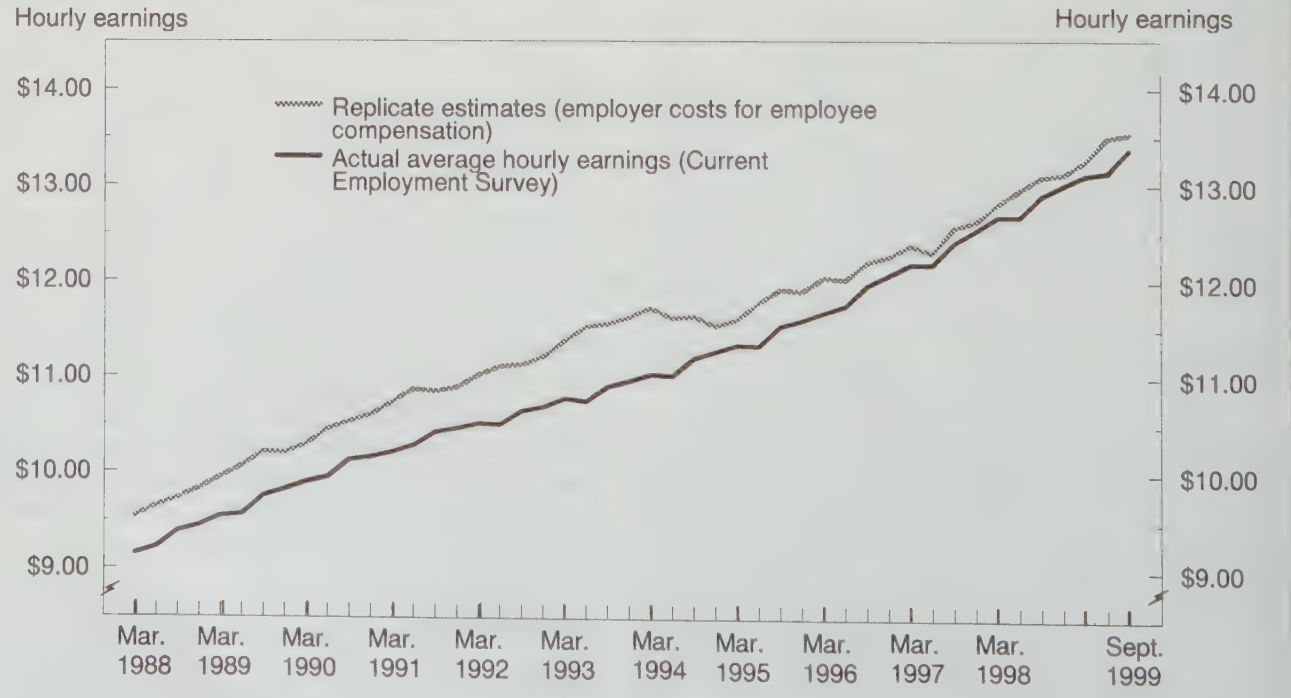
wide and to measure hours of work and hours of paid leave. Because the ECI is a fixed weight index, it cannot be directly compared with the average hourly earnings, which is an average wage measure. In contrast, employer costs for employee compensation does reflect the current distribution of the employment in the economy.[6] Thus, individual (micro) data records, collected to produce the employer costs for employee compensation measure, were used to construct replicate estimates of the average hourly estimates.

In constructing these replicate estimates, definitions of earnings used for employer costs for employee compensation had to be correctly aligned with those used in the average hourly earnings. Published employer costs for employee compensation statistics measure a different pay concept from those in the average hourly earnings. Average hourly earnings are the average earnings per hour paid, which include overtime pay, any pay differentials for shift work, and cash payments for hours of paid leave. In the employer costs for employee compensation, wages and salaries refer to straight-time pay per scheduled hour of work, while paid leave, overtime, and shift premiums are defined as components of benefits. Therefore, to derive data comparable with average hourly earnings, we combined the pay components for the individual employer costs for employee compensation data records to express each record as average earnings per hour paid.

To better approximate procedures used for the actual average hourly earnings, we used data on scheduled work hours plus typical overtime on the individual job in the employer costs for employee compensation data records. The estimating formula for average hourly earnings is an hours-weighted aggregate; the average hourly earnings series reflect the distribution of paid hours across part-time and full-time jobs.[7] Thus, we also constructed an hours-weighted aggregate from the employer costs for employee compensation data. (Abraham and others also constructed hours worked-weighted aggregates of CPS data to compare with the average hourly earnings series.[8]) An alternative approach, employment-weighted averages from employer costs for employee compensation data, would produce lower pay levels than hours worked-weighted aggregates because full-time jobs receive more weight than part-time jobs and full-time jobs tend to have higher pay than part-time jobs.

Both employer costs for employee compensation and average hourly earnings data are collected in the same reference week, but the compensation data are collected only for the months of March, June, September, and December. We assembled average hourly earnings data for these months from March 1988 to September 1999, thus allowing 46 direct comparisons over a 12-year period. Chart 1 plots this time series of employer costs for employee compensation earnings repli-

Chart 1. Comparison of actual average hourly earnings with replicate estimates, quarterly periods, March 1988 to September 1999



cates for all production and nonsupervisory employment in U.S. private industry, along with corresponding the actual average hourly earnings series from the CES program.

We limit our comparisons to long-term average levels of earnings. Even though both the CES and the employer costs for employee compensation generate statistics on the same subject of interest—earnings of workers in the U.S. economy—differences in data collection procedures and sampling approaches between the two statistical programs limit the ability to make comparisons of short-term movements. Data on hours of work—including overtime—in the employer costs for employee compensation series are obtained only at the initial data collection. Because surveyed jobs can remain in the employer costs for employee compensation sample for up to 5 years, overtime hours reported for the job may not be accurate. In contrast, average hourly earnings should reflect the current use of overtime. However, when making comparisons over longer time periods, employer costs for employee compensation hours should better reflect the usual schedule of hours worked because new jobs are initiated with sample replacement. Over most of the 1988–99 period, the employer costs for employee compensation sample was replenished through an industry rotation scheme so that variation in earnings over short time periods reflects replacement of the sample.[9] (In contrast, primary ECI data are changes in earnings for the same job, and thus are unaffected by sample replacement.) The sample used to construct the actual average hourly earnings is also replenished, but the estimating formula reduces the impact of sample replacement in month-to-month comparisons by heavily weighting earnings in samples which can be matched from one month to the next.[10]

The effects of the second aspect of employer costs for employee compensation data collection—sample replacement—are evident in chart 1. In 1994, a considerable number of new sample units in the employer costs for employee compensation measure had lower wage levels than comparable jobs in previous samples so that between March 1994 and March 1995 the replicate estimates of average earnings using employer costs for employee compensation data actually declined. As is also evident in chart 1, the 1994–95 shift in sample composition also affected the growth rate of earnings in the employer costs for employee compensation replicate estimate. From March 1988 to March 1994, the employer costs for employee compensation earnings replicate grew faster than the corresponding average hourly earnings data, but from March 1995 until September 1999 the reverse pattern held.[11] However, throughout either of these periods, the employer costs for employee compensation replicate earnings estimate was always higher than the corresponding average hourly earnings; it is this long-term difference in earnings levels pattern on which we focus our analysis.

When making comparisons over long periods of time, the direct control over sample selection in the employer costs for employee compensation measure provides a diagnostic aid to investigate various hypotheses concerning job coverage in the average hourly earnings. Because ECI sample weights are benchmarked to CES employment at the 2-digit Standard Industrial Classification (SIC) level, total employment for the employer costs for employee compensation replicates is essentially the same as total employment published for the CES.[12] Each sample job in the employer costs for employee compensation measure is classified by occupation, so that replicates can be estimated for production jobs in the goods-producing sector and nonsupervisory jobs in service-producing sector. Using the sample weights attached to jobs, the employment associated with a particular employer cost for employee compensation replicate of the average hourly earnings also can be estimated.

Results with usual job coverage

We can compare both earnings levels and job coverage between the actual average hourly earnings and employer costs for employee compensation replicate estimates, employing the standard definitions of production and nonsupervisory jobs. Reflecting the pattern evident in chart 1, the mean employer costs for employee compensation replicate estimate for all production and nonsupervisory jobs is higher (by 3.6 percent) than the corresponding average hourly earnings statistic. (See table 1.) However, this pattern does not hold when making separate comparisons for production jobs and nonsupervisory jobs. For production jobs in the goods producing sector, the employer costs for employee compensation replicate estimate was on average 1.5 percent lower than the corresponding average hourly earnings measure. In contrast, the employer costs for employee compensation replicate for nonsupervisory jobs in the services producing sector—representing about 80 percent of all production and nonsupervisory employment—was on average 5.8 percent higher than the corresponding average hourly earnings figure.

The lower employer costs for employee compensation replicate earnings estimates for production jobs in goods production could be the result of undercounting actual overtime payments in the data collection. As discussed earlier, overtime hours for any job in employer costs for employee compensation data collection is held constant while the job remains in the sample. However, comparison of additional employer costs for employee compensation and average hourly earnings data for the manufacturing component of goods production (that is, not including mining or construction) does not support this hypothesis. For the manufacturing sector, overtime hours are separately collected in the CES so two variants of the average hourly earnings series are produced; actual hourly earnings and an estimate of the average straight-time wage. Employer costs for employee compensation data also can be used to construct replicates for these two series.

The employer costs for employee compensation replicate estimates of average hourly earnings for production jobs in manufacturing, either including or excluding overtime costs, are virtually identical to the corresponding average hourly earnings series. For the March 1988 through September 1999 period, the mean level of the actual average hourly earnings for production jobs in manufacturing was $11.98; slightly higher than the mean of the corresponding employer costs for employee compensation replicate estimates, $11.94. In the same period, the estimated straight-time wage (exclusive of overtime costs) from the average hourly earnings was $11.38, while the corresponding employer costs for employee compensation replicate estimate was $11.40.

The employer costs for employee compensation replicate earnings estimates for nonsupervisory jobs may be higher because some employers may not report earnings to the CES for some of these jobs having higher pay. (This explanation would also account for the higher employment coverage in the employer costs for employee compensation earnings replicate.) As discussed earlier, employers providing data in the CES are instructed to include earnings and hours data for nonsupervisory workers who are designated as "working supervisors" (workers whose supervisory duties are incidental to their job). However, employers also may not have the hours and earnings for these jobs located with the payroll records of the workers they supervise. Job coverage for the employer costs for employee compensation replicates is higher than that for the actual average hourly earnings for both goods-production jobs and nonsupervisory service jobs, but the discrepancy is more substantial for nonsupervisory jobs in services. On average, over the March 1988 to September 1999 period, job coverage in the average hourly earnings series was 86.1 percent, compared with 91.3 percent of sector employment for the employer costs for employee compensation replicate. Because the service-producing sector is so large, these differences in shares translate to a much larger number of jobs included in the employer costs for employee compensation replicate, compared with that in the average hourly earnings. For example, in September 1999, about 4.7 million more jobs in the service-producing sector were covered in the employer costs for employee compensation replicate of the average hourly earnings.[13] If these additional workers tended to receive higher pay, their exclusion from CES earnings reporting could account for part of the discrepancy between the average hourly earnings and estimates of worker pay from other data, such as the CPS.

Results with alternative job coverage

To investigate whether a more restrictive definition of production and nonsupervisory jobs would yield a replicate that would have job coverage and wage levels closer to the actual average hourly earnings, we estimated additional employer costs for employee compensation replicates that excluded jobs that were classified as "working supervisors." To mimic the possible exclusion of "working supervisors" by employers reporting in the CES, we identified all production and nonsupervisory jobs in the employer costs for employee compensation database that included the term "supervisors" in their occupational title. Table 2 lists these occupations and their estimated share of total private nonfarm employment in March 1997. Total private industry employment represented by these "working supervisors" is similar to the difference in job coverage between the average hourly earnings and the employer costs for employee compensation replicate estimates shown in table 1. For example, table 2 shows that the working supervisor jobs constituted about 4.8 percent of all employment in March 1997. In contrast, for that same period, job

Table 2. Census occupations chosen to simulate "working supervisor" jobs, with estimated percent share of total private nonfarm employment, March 1997

Census code	Occupational title	Percent share
...	Total, all working supervisor jobs	4.8
C243	Supervisors, sales occupations	1.58
D303	Supervisors, general office	.49
D305	Supervisors, computer equipment operators	.21
D307	Supervisors, distribution, scheduling, and adjusting clerks	.17
E503	Supervisors, mechanics and repairers	.26
E553	Supervisors, brickmasons, stonemasons, and tilesetters	.01
E554	Supervisors, carpenters and related workers	.06
E555	Supervisors, electricians and power transmission installers	.05
E556	Supervisors, painters, paperhangers, and plasterers	.01
E557	Supervisors, plumbers, pipefitters, and steamfitters	.04
E558	Supervisors, construction trades, n.e.c.	.19
E613	Supervisors, extractive occupations	.08
E628	Supervisors, production occupations	.71
G803	Supervisors, motor vehicle operators	.12
H498	Supervisors, forestry and logging occupations	.02
H864	Supervisors, handlers, equipment cleaners, and laborers, n.e.c.	.17
K415	Supervisors, guards	.05
K433	Supervisors, food preparation and service occupations	.35
K448	Supervisors, cleaning and building service workers	.18
K456	Supervisors, personal service occupations	.05

NOTE: "Percent share" is estimated share of total private nonfarm employment using Employer Costs for Employee Compensation microdata with March 1997 sample weights.

n.e.c. = not elsewhere classified.

Table 3. Earnings and job coverage, average hourly earnings and employer costs for employee compensation replicates, 1994 to September 1999

Job type[1]	Actual average hourly earnings (Current Employment Survey) data	Employer costs for employee compensation replicate of average hourly earnings	
		Standard definition for job coverage	Exclusion of supervisors from coverage
All production and nonsupervisory jobs in private nonfarm industry:			
Average earnings (dollars per hour)	$12.32	$12.56	$12.32
Job coverage (percent of sector employment)	82.4	86.8	82.2
Production worker jobs in goods production:			
Average earnings (dollars per hour)	$13.86	$13.55	$13.13
Job coverage (percent of sector employment)	70.8	72.0	67.6
Nonsupervisory jobs in services:			
Average earnings (dollars per hour)	$11.80	$12.24	$12.06
Job coverage (percent of sector employment)	86.2	91.5	86.9

[1] The data are based on alternative definitions of production and nonsupervisory jobs.

NOTE: The number of comparisons is less than that shown in table 1 because the required occupational detail is only available in 10 selected months of the year, usually for the months of March. "Job coverage" is the share of total employment in the respective sector that is included in the average hourly earnings calculation.

coverage in the employer costs for employee compensation replicate estimate exceeded that of the actual average hourly earnings by 4.1 percent.

The results of calculating employer costs for employee compensation earnings replicates using available data to exclude "working supervisors" are illustrated in table 3. The detailed occupational information necessary to exclude working supervisors from the employer costs for employee compensation measure is not available every period, so comparisons are limited to 10 months. For this limited set of comparisons, job coverage and earnings level for the aggregate series are both virtually identical to these statistics for the actual average hourly earnings. However, this matching of the two series breaks down when comparing production and nonsupervisory jobs separately. Excluding working supervisors in production jobs increases the discrepancy of the employer costs for employee compensation earnings replicate with the comparable average hourly earnings series. Eliminating working supervisors from nonsupervisory jobs in services in the employer costs for employee compensation database substantially reduces, but does not eliminate, the gap in earnings with the comparable average hourly earnings series. Thus, other factors besides job coverage of "working supervisors" appear to be contributing to the discrepancies.

Conclusions

There has been widespread interest in comparing average hourly earnings to other broad wage and compensation measures. This article presented a new set of comparisons between the average hourly earnings series from the CES program and data from the Employment Costs for Employee Compensation program, which samples earnings of individual jobs within a nationwide survey of establishments. Data limitations require us to focus on comparisons of levels of earnings and employment rather than on trends. We derive independent estimates ("replicate estimates") from the microdata used to produce the employer costs for employee compensation to compare with estimates from the average hourly earnings series. The employer costs for employee compensation replicates showed higher earnings and coverage of employment than the actual average hourly earnings over the 1988–99 period. For production workers in goods production, these differences in earnings levels and job coverage were small—on average, about $0.40 per hour in earnings and 0.7 percent of the sector's job coverage. Discrepancies in earnings levels and job coverage were greater for nonsupervisory workers in services production, and we conducted further analysis of the hypothesis that these discrepancies were caused by omission of "working supervisors" from the actual average hourly earnings. Omitting "working supervisors" from the employer costs for employee compensation replicates of earnings estimates were reduced, but that did not eliminate discrepancies in earnings levels and job coverage with the actual average hourly earnings series. However, the replicate approach used in this article and that used by Abraham and others only provides indirect evidence on the possible role of limited job coverage in average hourly earnings levels. □

Notes

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[1] For more information on the Current Employment Statistics program and the average hourly earnings series, see *BLS Handbook of Methods*, Bulletin 2490 (Bureau of Labor Statistics, 1997), pp. 15 and 17.

[2] The Current Employment Statistics program is researching and tentatively planning for transition to all employee hours and earnings estimates. However, existing historical data cannot be revised to correspond with this potential new series.

[3] See *BLS Handbook of Methods*, p. 17.

[4] See American Statistical Association Panel for the Bureau of Labor Statistics Current Employment Statistics Survey, "A Research Agenda to Guide and Improve the Current Employment Statistics Survey," Mimeo (American Statistical Association, January 1994); and Barry Bosworth, and George Perry, "Productivity and Real Wages: Is There a Puzzle?" *Brookings Papers on Economic Activity*, 1994, no. 1, pp. 317–43.

[5] Katharine G. Abraham, James R. Spletzer, and Jay C. Stewart, "Divergent Trends in Alternative Wage Series," in John C. Haltiwanger, Marilyn E. Manser, and Robert Topel, eds., *Labor Statistics Measurement Issues* (University of Chicago Press, 1998), pp. 293–324.

[6] Bosworth and Perry, "Productivity and Real Wages," compared the rate of growth in the Employer Cost Index for production and nonsupervisory jobs with the growth rate of the average hourly earnings series; also see Michael K. Lettau, Mark A. Loewenstein, and Aaron T. Cushner, "Explaining the Differential Growth Rates of the ECI and ECEC," *Compensation and Working Conditions*, Summer 1997, pp. 3–14. In this study, Lettau and others show that over the 1986–96 period, growth in the ECI exceeded the growth in employer costs for employee compensation.

[7] See *BLS Handbook of Methods*, p. 21.

[8] Abraham and others, "Divergent Trends in Alternative Wage Series."

[9] See *Report on the American Workforce* (Bureau of Labor Statistics, 1995), p. 162.

[10] See *BLS Handbook of Methods*, p. 21.

[11] In the earlier period, the annualized mean percent quarter-to-quarter growth rate of the average hourly earnings was 3.16 percent, while the corresponding growth rate of the employer cost for employee compensation replicate was 3.51 percent. In the latter period, the average hourly earnings grew on average by 3.68 percent, while the employer costs for employee compensation replicate grew by 3.42 percent.

[12] Industry classification numbers and levels are listed in the *Standard Industrial Classification Manual 1987* (Washington, Office of Management and Budget).

[13] Published Current Employment Statistics employment for nonsupervisory jobs in September 1999 was 71.3 million, while the estimate of employment coverage for the corresponding employer costs for employee compensation replicate was 76.0 million.

Older workers: employment and retirement trends

As members of the "baby-boom" generation begin to retire and collect Social Security, pension, and other benefits, many changes to both the public and private retirement systems may occur, such as raising the ages of eligibility, creating more flexible pension plans, and introducing "phased retirement"

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Deciding when to retire is a choice that will affect an individual's economic circumstances for the rest of his or her life. In addition to affecting the lives of individuals, the retirement decisions of older workers have an impact on the Nation's economy. The number of people retiring each year affects the size of the labor force, which has a direct impact on the economy's capacity to produce goods and services. Other things being equal, fewer retirements in any given year would result in a greater supply of experienced workers available to employers and fewer people relying on savings, pensions, and Social Security as their main sources of income. Consequently, changes in the age profile of the population and in the average age at which people choose to retire have implications for both national income and the size and composition of the Federal budget.

To understand the factors that affect the retirement decision, one must first know what it means to "retire." Retirement is most often defined with reference to two characteristics: nonparticipation in the paid labor force and receipt of income from pensions, Social Security, and other retirement plans. An individual who does not work for compensation and who receives income only from pensions, Social Security, and financial assets would meet this definition of retirement; an individual who works for compensation and receives no income from pensions or Social Security would not meet this definition.

Between these two extremes, however, are those who might be considered retired under one definition but not the other. For example, individuals who have retired from careers in law enforcement or the military—both of which typically provide pensions after 20 years of service—often work for many years at other jobs, while at the same time also receiving pensions from prior employment. In such cases, having retired from a particular occupation does not necessarily mean that one has retired from the workforce. On the other hand, many people who retire from full-time employment continue to work part time to supplement the income they receive from pensions and Social Security. If the majority of their income is provided by Social Security, pensions, and savings, economists typically classify them as retired, even though they continue to engage in paid employment. As these examples suggest, not everyone who receives

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pension income is retired, and some who work for pay actually are retired.

This article begins by describing the change in the age distribution of the U.S. population that will occur between 2000 and 2010 and summarizing the historical data on the labor force participation of older workers. This discussion is followed by an analysis of recent data from the Current Population Survey on employment and receipt of pension income among persons aged 55 years and older during the mid- to late 1990s. Employment trends among older workers are then discussed in the context of data from the Social Security Administration on the proportion of workers who claim retired-worker benefits before the full retirement age (currently age 65). The final section of the article discusses recent proposals to promote "phased retirement" through amendments to the sections of the Internal Revenue Code that govern the taxation of pension income.

The aging labor force, 2000–2010

As members of the baby-boom generation—persons born between 1946 and 1964—approach retirement age, the demographic profile of the American population will undergo a profound change. According to the Bureau of the Census, the proportion of the U.S. population aged 65 and older will increase from 12.6 percent in 2000 to 20.2 percent by 2030.[1] The age profile of the *working-age* population, however, already is undergoing a substantial shift toward a greater number of older workers and a relative scarcity of new entrants to the labor force. In 2000, the oldest baby boomers will be aged 54 years, while the youngest members of the group will be aged 36 years. These 78 million individuals today make up approximately 55 percent of the U.S. population aged 25 to 54. Their sheer numbers suggest that the impact on labor markets could be substantial if this generation chooses to retire earlier (or to remain in the workforce longer) than did previous generations.

The data presented in Table 1 show how the age profile of the U.S. population will change over the next 10 years. According to the Bureau of the Census, the number of Americans aged 25 years or older will reach 178 million in 2000. Over the next 10 years, this number will increase by about 10 percent to 195 million. Over that same period, however, the number of persons aged 25 to 54—the ages when labor force participation rates are at their highest—is projected to increase by only 1.5 million (1.2 percent). At the same time, the number of persons between the ages of 55 and 64 is projected to increase by 11.3 million, or more than 47 percent. In other words, while the number of persons aged 25 to 64 is expected to increase by about 12.8 million over the next 10 years, almost 90 percent of this increase is projected to occur among persons aged 55 to 64.

Table 1. U.S. Population aged 25 and older by age and sex, 2000, 2010

[Numbers in thousands]

Age and sex	2000	2010	Level change	Percent change
Total				
25 years and older	177,594	195,067	17,473	9.8
25 to 34 years	37,234	38,291	1,057	2.8
35 to 44 years	44,659	38,520	–6,139	–13.7
45 to 54 years	37,030	43,565	6,535	17.6
55 to 64 years	23,962	35,284	11,322	47.2
65 years and older	34,709	39,407	4,698	13.5
Men				
25 years and older	84,586	93,116	8,530	10.1
25 to 34 years	18,535	18,990	455	2.5
35 to 44 years	22,181	18,993	–3,188	–14.4
45 to 54 years	18,092	21,325	3,233	17.9
55 to 64 years	11,433	16,922	5,489	48.0
65 years and older	14,345	16,886	2,541	17.7
Women				
25 years and older	93,008	101,951	8,943	9.6
25 to 34 years	18,699	19,301	602	3.2
35 to 44 years	22,478	19,527	–2,951	–13.1
45 to 54 years	18,938	22,240	3,302	17.4
55 to 64 years	12,529	18,362	5,833	46.6
65 years and older	20,364	22,521	2,157	10.6

SOURCE: Jennifer Cheeseman Day, *Population Projections of the United States by Age, Sex, Race, and Hispanic Origin: 1995 to 2050, Current Population Reports*, Series P-25-1130 (Bureau of the Census, 1996).

Table 2. Labor force participation rates by age and sex, 1950–2008

Year	Men			Women		
	25 to 54 years	55 to 64 years	65 years and older	25 to 54 years	55 to 64 years	65 years and older
1950	96.5	86.9	45.8	36.8	27.0	9.7
1955	97.4	87.9	39.6	39.8	32.5	10.6
1960	97.0	86.8	33.1	42.9	37.2	10.8
1965	96.7	84.6	27.9	45.2	41.1	10.0
1970	95.8	83.0	26.8	50.1	43.0	9.7
1975	94.4	75.6	21.6	55.1	40.9	8.2
1980	94.2	72.1	19.0	64.0	41.3	8.1
1985	93.9	67.9	15.8	69.6	42.0	7.3
1990	93.4	67.8	16.3	74.0	45.2	8.6
1995	91.6	66.0	16.8	75.6	49.2	8.8
1998	91.8	68.1	16.5	76.6	51.2	8.6
1999	91.7	67.9	16.9	76.8	51.5	8.9
2008[1]	91.3	69.4	17.8	79.7	57.7	9.1

[1] Data for 2008 are from the Office of Employment Projections, Bureau of Labor Statistics.

Labor force participation rates

The labor force participation rate—the percentage of a given population that is either working or looking for work—varies by age and gender. Moreover, within specific age and gender categories, the rates have changed over time, as workers have responded to various economic developments, and as societal values regarding the employment of women and the retirement of older workers have changed. Also, as the United States has moved from a largely manufacturing-based economy to one in which producing and distributing *information* is perhaps the most important industrial activity, there has been an increase in demand for highly educated workers, and relatively less demand for workers who can perform physically demanding labor. At the same time that the economy has been producing jobs for workers of more varied physical abilities, the two-earner couple and the "working mom" have become the rule, rather than the exception they were 30 or 40 years ago. With near universal coverage by Social Security and widespread participation in pensions and retirement savings plans, more workers can anticipate retirement as an opportunity for leisure and recreation, rather than as a time of financial dependency on their children.

Men aged 55 years and older are much less likely to participate in the labor force today than were their counterparts half a century ago.[2] According to data from the Current Population Survey (CPS)—a monthly survey conducted by the Bureau of the Census for the Bureau of Labor Statistics (BLS)—in the 1950s, about 5 in 6 men aged 55 to 64 participated in the labor force—that is, they were either working or actively looking for work.[3] (See table 2.) By the 1990s, only 2 in 3 men in that age group participated in the labor force. Most of the historical decline occurred over a relatively brief period, from about 1970 to the mid-1980s. Among men 65 and older, the decline began earlier, but it appears to have ended around 1985. Between 1950 and 1985, the labor force participation rate for men 65 years and older fell from 46 percent to about 16 percent. Since the mid-1980s, labor force participation rates among men aged 55 to 64 years have remained in the range of 66 percent to 68 percent, while the rate for those aged 65 and older has remained between 16 percent and 17 percent.

From 1950 to the present, women's labor force participation rates have moved steadily upward. Among women aged 55 to 64, the rate rose from 27 percent in 1950 to 45 percent in 1990, and 52 percent in 1999. Among women 65 and older, however, the labor force participation rate has changed very little over the last 50 years, remaining between 8 percent and 11 percent over the 1950–99 period.

The stability of labor force participation rates among men aged 55 years and older since the mid-1980s is likely attributable to several factors. First, Social Security coverage has been expanded and now covers virtually all private sector nonfarm employment in the United States.[4] The earliest age of eligibility for Social Security retired-worker benefits was set at age 62—in 1956 for women and in 1961for men—and has not changed since. Second, in the private sector, the expansion in pension coverage that occurred in the 1950s and 1960s had ended by 1980—about half of all workers were covered by a pension plan in 1996, virtually the same percentage as were covered in 1980. Finally, most traditional defined-benefit pension plans have minimum-age and length-of-service requirements that must be met before pension benefits can be paid. These provisions, in effect, establish a minimum age below which retirement is not a viable option for most workers. According to the BLS Employee Benefits Survey, more than 90 percent of employees in medium and large firms who had pension coverage in 1997 were covered by a plan with a minimum age requirement for retirement benefits, and more than 80 percent of these workers were covered by plans that had a minimum retirement age of 55 years or older.[5]

Recent employment trends

Data from the March CPS indicate that, from 1994 to 2000, employment increased among both men and women aged 55 to 64.[6] (See table 3.) Moreover, the increases occurred among both 55- to 61-year-olds, who are not eligible for Social Security retirement benefits, and 62- to 64-year-olds, who are eligible for reduced Social Security benefits. The employment–population ratio—the proportion of a given population that is employed—among men aged 55 to 61 rose from 68.5 percent in March 1994 to 73.3 percent in March 1999, before declining to 71.3 percent in March 2000. Among those aged 62 to 64, the ratio rose from 40.9 percent to 47.1 percent over the same period. The employment-population ratio also increased for women. Among 55- to 61-year-olds, it rose from 53.3 percent to 58.0 percent over the period, and among 62- to 64-year-olds, it increased from 31.2 percent to 34.6 percent.

Much of the increase in employment among persons aged 55 years and older during the mid- to late-1990s probably was due to the strength of the economy during these years. Between 1993 and 1999, for example, the unemployment rate for workers of all ages declined from 6.9 percent to 4.2 percent. Over the same period, the Nation's real gross domestic product (GDP) grew at an average annual rate of 3.7 percent.[7] It is possible, however, that at least part of the increase in employment was due to the trend of workers choosing to remain in the labor force rather than taking early retirement, as well as the effects of long-term trends away from *defined-benefit* pension plans, which often include early-retirement subsidies, toward *defined contribution* plans, which are age neutral in their design. The Employee Benefits Survey, for example, indicates that between 1993 and 1997, the proportion of full-time employees in medium and large private establishments who were covered by a defined-benefit pension plan fell from 56 per-

Table 3. Employed persons aged 55 years and older by age and sex, 1994–2000

[Numbers in thousands]

Age and year of survey	Men					Women				
	Population	Employed		Percent employed:		Population	Employed		Percent employed:	
		Total	Percent of population	Full time	Part time		Total	Percent of population	Full time	Part time
55 to 61 years:										
1994	7,047	4,828	68.5	90.7	9.3	7,676	4,089	53.3	73.1	26.9
1995	6,993	5,035	72.0	91.5	8.5	7,716	4,196	54.4	74.1	25.9
1996	7,409	5,349	72.2	91.2	8.8	7,947	4,314	54.3	74.5	25.5
1997	7,523	5,404	71.8	90.6	9.4	8,142	4,582	56.3	77.1	22.9
1998	7,855	5,664	72.1	91.4	8.7	8,515	4,896	57.5	77.7	22.9
1999	8,174	5,990	73.3	91.7	8.3	8,743	4,904	56.1	76.8	23.2
2000	8,204	5,849	71.3	92.3	7.7	9,041	5,240	58.0	77.2	22.8
62 to 64 years:										
1994	2,869	1,172	40.9	76.1	23.9	3,129	975	31.2	60.6	39.4
1995	2,879	1,206	41.9	79.0	21.0	3,162	975	30.8	58.3	41.7
1996	2,681	1,159	43.2	77.8	22.2	3,044	968	31.8	59.3	40.7
1997	2,733	1,255	45.9	79.2	20.8	3,069	1,047	34.1	62.5	37.5
1998	2,812	1,283	45.6	80.9	19.1	3,065	1,040	33.9	61.2	38.8
1999	2,785	1,297	46.6	78.4	21.6	3,199	1,102	34.4	60.1	39.9
2000	2,927	1,380	47.1	77.9	22.1	3,209	1,109	34.6	61.3	38.7
65 to 69 years:										
1994	4,225	1,056	25.0	57.9	42.1	5,365	891	16.6	37.4	62.6
1995	4,395	1,169	26.6	54.7	45.3	5,263	919	17.5	36.3	63.7
1996	4,522	1,237	27.4	56.7	43.3	5,224	865	16.6	40.4	59.6
1997	4,321	1,150	26.6	56.8	43.2	5,180	936	18.1	42.1	57.9
1998	4,286	1,085	25.3	57.0	43.0	5,075	941	18.5	44.5	55.5
1999	4,298	1,136	26.4	55.7	44.3	5,022	941	18.7	40.9	59.1
2000	4,376	1,330	30.4	60.5	39.5	4,976	983	19.8	44.2	55.8
70 years and older: .										
1994	8,493	953	11.2	49.7	50.3	12,678	682	5.4	32.9	67.1
1995	8,607	970	11.3	44.9	55.1	13,001	650	5.0	30.4	69.6
1996	8,738	989	11.3	44.2	55.8	13,174	681	5.2	30.3	69.7
1997	9,083	1,063	11.7	45.7	54.3	13,294	639	4.8	32.8	67.2
1998	9,238	970	10.5	48.0	52.0	13,484	740	5.5	31.9	68.1
1999	9,429	1,030	10.9	44.8	55.2	13,646	807	5.9	35.0	65.0
2000	9,510	1,169	12.3	48.5	51.5	13,759	816	5.9	36.4	63.6

SOURCE: Author analysis of the annual income supplement to the Current Population Survey.

Table 4. Population aged 55 years and older by age, sex, and pension receipt status, 1994–2000

[Numbers in thousands]

Age and year of survey	Men			Women		
	Population	Pension recipients	Percent	Population	Pension recipients	Percent
55 to 64 years:						
1994	9,916	2,351	23.7	10,805	1,336	12.4
1995	9,872	2,303	23.3	10,878	1,316	12.1
1996	10,090	2,279	22.6	10,991	1,164	10.6
1997	10,256	2,177	21.2	11,210	1,287	11.5
1998	10,667	2,152	20.2	11,580	1,253	10.8
1999	10,959	2,195	20.0	11,943	1,403	11.7
2000	11,131	2,174	19.5	12,250	1,439	11.7
65 years and older:						
1994	12,717	6,299	49.5	18,043	5,259	29.1
1995	13,001	6,108	47.0	18,264	5,252	28.8
1996	13,260	6,206	46.8	18,398	5,025	27.3
1997	13,404	6,316	47.1	18,474	4,933	26.7
1998	13,524	6,317	46.7	18,559	5,114	27.6
1999	13,727	6,457	47.0	18,668	5,186	27.8
2000	13,886	6,358	45.8	18,735	5,513	29.4

NOTE: Retirement plans may include a traditional pension, a retirement savings plan, or both.

SOURCE: Author analysis of the annual income supplement to the Current Population Survey.

cent to 50 percent. At the same time, the proportion of employees in these firms who were covered by defined-contribution plans rose from 49 percent to 57 percent.[8]

Pensions among older workers

An important consideration for an individual deciding whether to retire from the workforce is whether the sources of income available in retirement will be adequate to maintain his or her desired standard of living. Table 4 shows the proportion of men and women aged 55 and older who reported in the CPS that they received pension income of some kind during the calendar year prior to the survey. In this table, "pension income" includes employer-sponsored pensions (including military retirement), veterans' pensions, and periodic payments from annuities, insurance policies, individual retirement accounts, 401(k) accounts, and Keogh plans for the self-employed.

Not surprisingly, the proportion of men and women who receive income from a pension or other retirement plan increases with age. In 1999, only 20 percent of men aged 55 to 64 received any income from a pension or other retirement plan; among those 65 years and older, however, 46 percent had income from private pensions or retirement savings plans. The patterns among women are similar: only 12 percent of 55- to 64-year-old women received income from private pensions or retirement savings plans in 1999, while 29 percent of those aged 65 years and older received such income.

The proportion of men aged 55 to 64 years who were receiving pension income declined from 24 percent in 1993 to 20 percent in 1999. Over the same period, the proportion receiving pension income fell from 50 percent to 46 percent among men aged 65 and older. The proportion of women aged 55 to 64 years with pension income was more stable, at 11 percent to 12 percent throughout the 1993–99 period. Among women 65 and older, 29 percent received income from private pensions and retirement plans in 1999, the same percentage as in 1993.

Work by Pension Recipients. Among men aged 55 to 64 who received income from a private pension or retirement savings plan during 1999, about 37 percent were employed either full or part time in March 2000—an increase of more than four percentage points over the comparable rate in 1994, when it was 32.5 percent. (See table 5.) Relatively few men aged 65 or older who receive income from private pensions and retirement savings plans also engage in paid employment: only 10 to 12 percent were employed, on average, over the 1994–2000 period. Women who receive pension income are even less likely than men to be employed. Among 55- to 64-year-old women who received income from a private pension or retirement savings plan in 1999, just 31 percent were employed in March 2000. Among women aged 65 years and older, only 6 to 8 percent, on average, were employed during the 1994–2000 period.

Social Security retirement benefits

Currently, the age of *full retirement* under Social Security is 65 years. Retired-worker benefits are first available at age 62, but benefits that begin before the full retirement age are subject to a permanent actuarial reduction equal to approximately 0.6 percent for each month below age 65. A worker retiring at

age 62 would receive benefits equal to 80 percent of the amount he or she would have received at age 65. As a result of the Social Security Amendments of 1983 (P.L. 98–21), the full retirement age is being increased to 67 incrementally over a 22-year period. Reduced benefits will continue to be available at age 62, but when the full retirement age reaches 67, the benefit payable at 62 will be 70 percent of the amount that would have been paid if not for the reduction for early retirement.

Most people choose to begin receiving Social Security retirement benefits before age 65. The data presented in Table 6 show that approximately 75 percent of men and 80 percent of women who began receiving benefits between 1989 and 1998 applied for benefits before age 65. Among women, this percentage has remained steady over the past decade,[9] while among men, there was a slight increase in the proportion of applicants younger than 65 years.

The data presented in table 3 indicate that the proportion of 55- to 64-year-olds engaged in paid employment rose steadily through the mid- to late-1990s. The data also show, however, that a much smaller proportion of 62- to 64-year-olds were employed than among those aged 55 to 61. One reason for the sharp decline is that age 62 is the earliest age of eligibility for Social Security retirement benefits.[10] The availability of (actuarially reduced) benefits at age 62 allows many people who otherwise would have continued working to retire from the labor force.

The Social Security system also can affect the decision of when to retire from the labor force through the *delayed retirement credit* and the *earnings test.* The delayed retirement credit provides a permanent increase in benefits for workers who delay receipt of Social Security benefits until after age 65—thus creating an incentive for older workers to remain in the labor force in order to receive full benefits. The earnings test reduces the Social Security benefits of recipients under the normal retirement age whose earnings exceed specific thresholds.[11] For example, a Social Security recipient under age 65 in 2000 can earn up to $10,080 without having his or her benefit reduced, but benefits are cut by $1.00 for each $2.00 earned in excess of that amount. This creates a financial incentive for these individuals to keep their earnings below the threshold. Congress has at times altered both the delayed retirement credit and the earnings test to encourage workers to stay in the labor force.

Retired worker beneficiaries as a percentage of each age category. If more workers chose to delay receipt of Social Security benefits until age 65, this delay would eventually show up as a declining percentage of 62- to 64-year-olds who are receiving such benefits. The data presented in table 7 show that there was a decline of about two percentage points between 1995 and 1998 in the proportion of men aged 62 to 64 who were receiving benefits. This coincided with the rising employment–population ratio among men in this age group. The lower rate among 62- to 64-year-old men during this period may have been caused by robust economic growth, or it may reflect a trend toward later retirement, independent of

Table 5. Employment among retirement income recipients aged 55 years and older by age and sex, 1994–2000

[Numbers in thousands]

Age and year of survey	Men			Women		
	Pension recipients	Number employed	Percent employed	Pension recipients	Number employed	Percent employed
55 to 64 years:						
1994	2,351	763	32.5	1,336	369	27.6
1995	2,303	864	37.5	1,316	410	31.2
1996	2,279	831	36.5	1,164	324	27.8
1997	2,177	832	38.2	1,287	416	32.3
1998	2,152	778	36.2	1,253	363	29.0
1999	2,195	870	39.6	1,403	370	26.4
2000	2,174	799	36.8	1,439	442	30.7
65 years and older:						
1994	6,299	637	10.1	5,259	345	6.6
1995	6,108	727	11.9	5,252	326	6.2
1996	6,206	726	11.7	5,025	281	5.6
1997	6,316	724	11.5	4,933	277	5.6
1998	6,317	648	10.3	5,114	404	7.9
1999	6,457	706	10.9	5,186	426	8.2
2000	6,358	739	11.6	5,513	401	7.3

NOTE: Retirement plans may include a traditional pension, a retirement savings plan, or both.

SOURCE: Author analysis of the annual income supplement to the Current Population Survey.

Table 6. Social Security retired-worker benefits awards by age and sex, 1989–98

Age in year benefits began	Men		Women	
	Number of awards	Percent of awards	Number of awards	Percent of total awards
62 to 64 years:				
1989	616,200	73.2	490,700	80.6
1990	618,900	73.8	487,800	79.6
1991	639,800	73.3	489,100	79.0
1992	641,800	74.2	510,600	80.1
1993	646,100	75.3	502,800	79.5
1994	607,600	76.1	504,600	81.5
1995	596,500	75.6	486,200	79.5
1996	581,900	76.0	488,100	80.4
1997	586,300	75.4	486,500	66.7
1998	586,800	75.7	497,500	75.9
65 years:				
1989	173,700	20.6	87,500	14.4
1990	160,300	19.1	86,900	14.2
1991	172,200	19.7	95,400	15.4
1992	166,100	19.2	89,900	14.1
1993	159,400	18.6	97,100	15.4
1994	145,500	18.2	82,600	13.3
1995	145,900	18.5	88,900	14.5
1996	135,200	17.7	86,500	14.3
1997	137,300	17.7	86,500	11.9
1998	136,300	17.6	92,500	14.1
66 years and older:				
1989	52,100	6.2	30,700	5.0
1990	58,900	7.0	38,200	6.2
1991	61,300	7.0	34,400	5.6
1992	57,600	6.7	36,600	5.7
1993	52,100	6.1	32,200	5.1
1994	45,600	5.7	31,600	5.1
1995	47,000	6.0	36,300	5.9
1996	48,300	6.3	32,200	5.3
1997	53,800	6.9	156,600	21.5
1998	52,100	6.7	65,800	10.0

NOTE: Special outreach programs by the Social Security Administration resulted in an above-average number of conversions of nondisabled widows to retired worker benefits in 1997 and 1998. Initial awards exclude conversions from disabled worker benefits to retired worker benefits.

SOURCE: *Annual Statistical Supplement to the Social Security Bulletin*, (Social Security Administration, various years).

economic conditions. More time will be needed before firm conclusions can be drawn. Among women aged 62 to 64, the proportion who were receiving Social Security benefits fluctuated between 34 percent and 36 percent from 1989 to 1998, with no clearly discernible trend.

Older workers and phased retirement

In the traditional view of retirement, a worker moves from full-time employment to complete withdrawal from the labor force in a single step. In fact, however, some workers choose to continue working after they have retired from their "career" jobs. The data in table 5, for example, show that 37 percent of men and 31 percent of women aged 55 to 64 who received income from private pension plans in 1999 were employed in March 2000. The process of retiring often occurs gradually over a number of years, with many workers retiring from year-round, full-time employment and moving to part-time or part-year work at another firm, often in a different occupation.

As members of the baby-boom generation begin retiring in the coming decades, millions of skilled and experienced workers will exit the labor force. As this occurs, employers may find it necessary to alter their employment practices and pension plans to induce some of those who would otherwise retire completely to remain on the job, perhaps on a part-time or part-year schedule. This process is sometimes referred to as *phased retirement*. No statutory definition of phased retirement exists, but one analyst has described it as "the situation in which an older individual is actively working for an employer part time or [on] an otherwise reduced schedule as a transition into full retirement. [It] may also include situations in which older employees receive some or all of their retirement benefits while still employed."[12]

Advocates of phased retirement contend that more pension-eligible individuals would choose to continue working if employers could offer them the opportunity to collect pension benefits while remaining on the employer's payroll. Under current law, this option may be offered only to employees who

have reached a pension plan's *normal retirement age*. Some employers have suggested that phased retirement would be embraced by more firms if this option could be offered to employees at the plan's *early retirement age*. Employers generally would prefer the freedom to offer these "in-service" pension distributions only to selected categories or classifications of plan participants.[13] In order for either of these actions to occur, however, the Internal Revenue Code and the Employee Retirement Income Security Act (ERISA) would need to be amended.[14]

Current approaches to phased retirement A study conducted by the benefits consulting firm Watson Wyatt Worldwide found that 16 percent of the 586 firms participating in the survey offered some form of phased retirement to their employees.[15] The firms surveyed by Watson Wyatt described a number of strategies that employers can use to retain the services of valued employees who are eligible for retirement, and who might be lost to the firm if the only options available are full-time employment or full-time retirement. Although the firms participating in the survey may not be representative of all employers, their practices with respect to phased retirement offer some insights into the strategies that firms have been able to employ under current law and regulations to promote phased retirement among their employees.[16]

According to the data collected by Watson Wyatt, many firms rehire retired employees on a part-time or temporary basis: 75 percent of the firms having a phased retirement arrangement said that they rehire employees after they retire, usually as part-time or temporary workers. In addition, 42 percent said they contracted with retired employees to be consultants. (Some firms had both kinds of arrangements with retired employees.) Of the firms with phased retirement, 60 percent said that their approach included allowing retirement-eligible employees to work fewer days per week or fewer hours per day. Other policies include allowing employees who are

Table 7. Social Security retired-worker beneficiaries by age and sex, 1989–98

[Numbers in thousands]

Age in year benefits began	Men		Women	
	Number of beneficiaries	Percent of age group	Number of beneficiaries	Percent of age group
62 to 64 years:				
1989	1,330	44.0	1,180	34.8
1990	1,336	43.6	1,167	34.2
1991	1,345	43.7	1,150	33.7
1992	1,351	43.9	1,137	33.7
1993	1,350	44.3	1,126	33.9
1994	1,353	44.8	1,139	34.5
1995	1,320	44.8	1,128	35.0
1996	1,293	44.6	1,126	35.7
1997	1,278	43.0	1,131	35.1
1998	1,286	42.5	1,156	35.3
65 to 69 years:				
1989	3,841	82.5	3,019	54.7
1990	3,898	84.0	3,067	55.8
1991	3,896	83.6	3,062	55.7
1992	3,937	84.3	3,098	56.6
1993	3,946	84.5	3,104	57.2
1994	3,906	83.6	3,065	56.9
1995	3,900	83.8	3,058	57.3
1996	3,871	84.3	3,046	58.0
1997	3,836	84.8	3,053	59.2
1998	3,783	84.2	3,036	59.4
70 years and older:				
1989	7,546	89.3	7,399	54.4
1990	7,751	89.2	7,607	54.7
1991	7,985	89.7	7,836	55.3
1992	8,186	89.9	8,037	55.8
1993	8,354	89.4	8,218	56.1
1994	8,536	89.5	8,404	56.6
1995	8,694	89.7	8,570	57.1
1996	8,848	89.4	8,715	57.4
1997	9,012	89.6	8,972	58.5
1998	9,138	89.5	9,112	59.0

SOURCE: Annual Statistical Supplement to the Social Security Bulletin, various years.

not ready to fully retire to transfer to other jobs within the firm (32 percent had such policies), extended leaves of absence (23 percent), and job sharing (19 percent).

As the variety of these arrangements indicates, several approaches to phased retirement can be accommodated under current law. It is important to note, however, that two of the most popular arrangements—hiring retired former employees on a part-time or temporary basis and hiring retirees as contractors—require the individual to *separate* from the firm before returning under an alternative work arrangement. This introduces considerable uncertainty into the process for both the retiree and the employer, because once the employment relationship is severed, neither party is legally bound to renew it.

Another popular approach to phased retirement is to allow employees to reduce the number of days per week or hours per day that they work for a period of months or years before they cease employment altogether. Unless the employee has reached the pension plan's normal retirement age, however, the plan cannot pay retirement benefits to the individual while he or she remains employed by the firm, even if only on a part-time basis. A plan that pays benefits to an employee that has not yet reached the plan's normal retirement age could lose its tax-qualified status.[17] In order to qualify for the favorable tax status granted to tax-qualified pension plans, the plan must pay benefits *only* on condition of death, disability, termination of employment, plan termination, or at the normal retirement age.[18]

An employee who has reached the pension plan's normal retirement age can begin to receive distributions from the plan, even if he or she continues to be employed by the firm.[19] Likewise, an employee who has reached the plan's early retirement age can begin to receive distributions from the plan upon separation from the firm, provided that he or she has met the required number of years of service stipulated by the plan. If a participant has separated from the employer and has begun to receive distributions from the plan at the early retirement age, he or she can continue to receive these distributions, even if at some future date the participant becomes re-employed by the plan sponsor.

Policy issues. Some employers see the statutory prohibition on making in-service pension distributions to employees who have not yet reached normal retirement age as an obstacle to establishing phased retirement plans because some older workers would find it financially impractical to cut back to a part-time or part-year work schedule if they were unable to supplement their earnings with pension income. One way for a firm to offer phased retirement to these workers under current law, without jeopardizing the tax-qualified status of its pension plan, would be to lower the normal retirement age. For example, if the normal retirement age under the plan is 62 years and the early retirement age is 55 years, the firm could reduce the normal retirement age to some age between 55 and 61. From the employer's point of view, there would be at least two potential drawbacks to such an approach: It could result in an unintended exodus of workers into retirement—because all eligible plan participants would be able to receive full pension benefits at an earlier age than previously—and it could result in a dramatic increase in the cost of funding the plan—because full benefits would be payable at a younger age.

Rather than reduce the normal retirement age in their pension plans, some employers would prefer that Congress amend the Internal Revenue Code to allow in-service pension distributions to employees who have reached the plan's early retirement age (or some age between the early and normal retirement ages).[20] Some observers believe, however, that such a policy would be contrary to the main purpose of pension plans, which is to replace wage income during retirement. These critics say that if employers were permitted to pay pension benefits to individuals still engaged in gainful employment, the benefits would become a tax-subsidized *supplement* to wages, paid to individuals who are still able to work; they argue that the benefits were intended to be a *substitute* for wages, paid to retired workers. Permitting in-service distributions to current employees who have not reached the plan's normal retirement age might allow employers to compensate current employees with pension funds, effectively reducing their operating expenses by shifting some of the cost of wages to the pension fund.

In 1999, about 2.4 million workers in the United States were receiving pension payments from a former employer—more than a million were under the age of 65. (See table 5.) Current law allows for an individual who has separated from a firm and is receiving pension distributions under an early retirement provision of the plan to become *re-employed* by that firm, while continuing to receive those benefits. Some employers have argued that it should be permissible to allow eligible employees to receive partial distributions under an early retirement provision without first having to separate from the employer and then be rehired. Such an option would require an amendment to the tax code. However, plan sponsors currently have the option of setting the normal retirement age at any age not greater than 65, and the early retirement age at any age under the normal retirement age, provided that the plan complies with the statutory requirements with respect to benefit accrual, vesting of benefits, nondiscrimination on the basis of age, and other plan characteristics.

An amendment to the tax code permitting in-service distributions at the early retirement age would alter incentives to work or retire, as well as how much to work and for whom to work. Consequently, it would affect both labor force participation and hours worked among affected employees. The *net* effect of these changes in labor force participation and hours worked would be almost impossible to predict. Some workers who would otherwise have fully retired before the plan's normal retirement age would choose instead to continue working

for their current employer on a reduced schedule, because they would be able to take partial pension distributions while still employed. This would tend to increase labor force participation. Other workers who would have taken early retirement and then sought other employment might choose instead to remain with their current employer on a reduced schedule. The effect of this change in behavior on hours worked might be close to neutral, depending on the wages available from alternative employment and the income received from pension distributions. Finally, some employees who otherwise would have chosen to continue working until reaching the plan's normal retirement age might instead reduce their work schedule and supplement their earnings with partial distributions from the retirement plan. This would tend to reduce total hours worked.

Distributions from 401(k) plans. Coverage under defined contribution plans, such as those authorized under section 401(k) of the Internal Revenue Code, grew rapidly during the 1990s. Between 1991 and 1997, the proportion of workers in medium and large private-sector establishments (those with 100 or more employees) who participated in defined contribution retirement plans increased from 49 percent to 57 percent.[21] The trend among small establishments (those with fewer than 100 employees) was similar. In 1996, 38 percent of employees in small private establishments participated in defined contribution retirement plans, compared with 28 percent in 1990.[22]

In-service distributions from defined contribution plans that occur before the participant reaches age 59½ are subject to a 10 percent excise tax in addition to ordinary income taxes. Distributions may begin as early as age 55, however, if the employee separates from his employer under an early retirement plan. Distributions in the form of a lifelong annuity are permissible at any age. Some advocates of phased retirement arrangements have suggested that the minimum age for in-service distributions from defined contribution plans should be lowered to age 55.[23] The effect on labor force participation of such a change in tax policy would likely be very similar to the effect of allowing in-service distributions from a defined benefit plan at the plan's early retirement age. Some workers who might have fully retired from the labor force earlier than age 59½, so that they could begin taking distributions from the plan, would be induced to work longer. Others who would have taken early retirement and then sought work elsewhere would remain with their current employers, because they would be able to combine wages from part-time work with distributions from the retirement plan. Finally, some employees who otherwise would have chosen to continue working until age 59½ or later would reduce their work schedules and supplement their earnings with distributions from the retirement plan.

Flexibility versus nondiscrimination. Pension plans that provide benefits mainly to the owners of a firm or to highly paid employees do not qualify for favorable tax treatment under the Internal Revenue Code.[24] The tax code defines specific tests that must be applied to a pension plan to determine whether or not it meets these requirements for *nondiscrimination* in favor of highly compensated employees.[25] These tests consist mainly of mathematical computations of the percentage of plan participants who are highly compensated employees and the percentage of contributions to the plan or benefits paid by the plan that are made on behalf of highly compensated employees.

It is a relatively common practice for firms to establish separate *nonqualified* retirement plans for the company owners or senior executives. However, if a plan that was originally established as a tax-qualified plan is subsequently found to discriminate in terms of coverage or benefits in favor of highly compensated employees, it could lose its tax-qualified status. In most of these cases, the only viable options available to the plan sponsor would be to remove the discriminatory provisions of the plan or terminate the plan. Covering rank-and-file employees under a nonqualified plan usually would not be practical because of the substantial tax liability that would result for both the plan sponsor and plan participants.

In general, employers would prefer the flexibility to offer phased retirement to some—but not all—pension plan participants. Some analysts have suggested that, even if Congress were to amend the Internal Revenue Code to allow in-service distributions from pension plans before the normal retirement age, it would do little to spur the growth of phased retirement unless employers also were permitted to limit eligibility for this benefit to employees with particular skills or abilities. However, a phased retirement option that offered in-service distributions only to managerial or professional employees could result in the plan failing to meet the nondiscrimination requirements of the Internal Revenue Code by altering the distribution of benefits among plan participants in a way that favored the highly compensated group.[26] In contrast, a phased retirement option that offered in-service distributions to *all* participants meeting specified age and length-of-service requirements would not conflict with the IRC antidiscrimination requirements.

Section 410(b) of the Internal Revenue Code prescribes specific tests for determining if a pension plan's coverage or benefits discriminate in favor of highly compensated employees. These tests are mathematical calculations that reveal the proportion of plan participants who are highly compensated employees and the proportion of contributions or benefits that are made on behalf of highly compensated employees. Some plan sponsors who would like to implement phased retirement programs would prefer to have these tests for nondiscrimination replaced by the more subjective method of testing that was in effect until 1994, which was based on the "facts and circumstances" surrounding the operation of the plan. In some cases, a phased retirement option that fails the mathematical tests for nondiscrimination that are required under

current law might not fail if it could be tested under the earlier (pre-1994) approach.

Legislation in the 106th Congress. Only July 19, 2000, the U.S. House of Representatives passed the Comprehensive Retirement Security and Pension Reform Act. Among many other pension reforms, this act would authorize the Secretary of the Treasury to, in some cases, employ a test based on facts and circumstances.[27] Earlier in July, the Phased Retirement Liberalization Act (H.R. 4837; S. 2853) was introduced, which would amend the Internal Revenue Code to permit in-service (preretirement) distributions from a defined benefit or defined contribution plan when the participant has either reached the plan's normal retirement age, reached age 59½, or has completed 30 years of service, whichever comes first. Currently, such distributions cannot be made from a defined benefit plan before the participant has reached the plan's normal retirement age or from a defined contribution plan before age 59½.

Policy responses to an aging population

In a free market economy, individual employers decide how much compensation to offer and whether that compensation will include benefits like pensions and health insurance. Employees decide whether they will work, where they will work, and how much they will work at least in part on the basis of the compensation offered by prospective employers. The terms of these labor market transactions can be influenced through direct regulation—such as ERISA, the Age Discrimination in Employment Act, and minimum wage legislation—through social insurance programs—such as Social Security and Medicare—and through the financial incentives created for both employers and employees by the Internal Revenue Code.

Social insurance programs and the tax code differ from direct regulation in that their primary objectives are, respectively, to provide benefits to individuals and to collect revenue for government operations. Nevertheless, both Social Security and the tax code affect the labor market behavior of employers and workers by establishing financial rewards or sanctions for certain actions. Given that the aging of the population and the impending retirement of the baby-boom generation are likely to affect the supply of labor and the productive capacity of the economy, both the Social Security Act and the tax code may be amended to provide incentives for people to work longer.

The rules that govern eligibility for Social Security benefits can have a substantial influence on workers' decisions about when to retire. Empirical evidence indicates that more retirements occur at age 62—the earliest age at which reduced retired worker benefits are available—and at age 65—the earliest age at which full retired worker benefits are available—than at other ages. The "earnings test," which reduces benefits for some Social Security beneficiaries who work, and the "delayed retirement credit," which increases benefits for workers who defer their benefits until after age 65, also may influence one's decision to work (and how much to work) after becoming eligible for Social Security. At times each of these provisions has been amended to provide greater incentives for individuals who are eligible for Social Security to continue working.

The Social Security Amendments of 1983 mandated a gradual increase in the age at which individuals are eligible for full retirement benefits from its current level of 65 years to 67 years in 2022. As a result, the actuarial reduction in Social Security benefits for those who retire at 62 will increase from 20 percent to 30 percent, creating a financial incentive to delay receipt of Social Security and continue working. The 1983 amendments also provided for an increase in the delayed retirement credit (DRC) for workers who defer their application for Social Security benefits until after age 65. In 1977, Congress set the DRC at 3 percent, meaning that benefits were permanently increased by 3 percent for each year that a worker delayed receipt of Social Security beyond age 65. The 1983 amendments provided for a gradual increase in the DRC beginning in 1990. When fully phased-in, the DRC will be 8 percent per year for people who turn age 65 in 2008 or later, which will result in a DRC that is close to being "actuarially fair" for the average worker.

The Social Security Act was recently amended to repeal the earnings test for beneficiaries who are 65 or older. As a result of Public Law 106–182 (April 7, 2000), the earnings test has been eliminated for people at the full retirement age (currently 65 years) or older, effective January 1, 2000. The earnings test remains in effect, however, for beneficiaries who are under the full retirement age. In 2000, Social Security recipients under age 65 will have their benefits reduced by $1 for each $2 of earnings in excess of $10,080.

Some employers are calling on Congress to amend the tax code to allow employers greater flexibility in designing phased retirement programs for their employees. One proposed amendment would permit pension in-service distributions to employees who have not reached the pension plan's normal retirement age. This, employers say, would allow them to offer older employees the chance to cut back their work schedules to part time, while supplementing their reduced salaries with pension income. Under current law, such an arrangement would be permissible only for plan participants who have reached the plan's normal retirement age.

The Phased Retirement Liberalization Act would allow in-service pension distributions to begin when a participant has reached the earliest of the plan's normal retirement age (59½ years), or the completion of 30 years of service. This might promote continued employment among older workers who—if given the choice between working full time and taking early retirement—would otherwise have chosen to retire. A more complicated issue, not addressed by this legislation but likely to arise in the future, is whether an employer may offer such an option only to specific categories of workers. □

Notes

[1] *Current Population Reports*, series P–25, no. 1130, reproduced in *Statistical Abstract of the United States: 1999* (Bureau of the Census, 1999), table 17, p. 17.

[2] For more on this trend, see Joseph F. Quinn, *Retirement Patterns and Bridge Jobs in the 1990s*, Issue Brief 206 (Washington, DC, Employee Benefit Research Institute, February 1999).

[3] Labor force participation rates are annual averages from the monthly CPS data. The CPS, a scientifically designed survey of about 50,000 households, is conducted monthly by the Bureau of the Census on behalf of BLS. Using data derived from the CPS, BLS publishes numerous labor force statistics by a variety of economic, social, and demographic characteristics. For more information on the CPS, see *BLS Handbook of Methods*, Bulletin 2490 (Bureau of Labor Statistics, April 1997), ch. 1, pp. 4–14.

[4] Approximately one-quarter of the employees of State and local governments—about 5 million people—work for governments that have elected not to participate in Social Security. This is the only remaining large group of workers not covered by Social Security.

[5] See *Employee Benefits in Medium and Large Private Establishments, 1997*, Bulletin 2517 (Bureau of Labor Statistics, September 1999), tables 136–37, pp. 108–09.

[6] Although the labor force participation rates discussed in the previous section were based on annual averages of monthly data, the employment data analyzed in this section are from the March supplement to the CPS. They show employment in the week prior to the March CPS interview. The March CPS files were used for this analysis because they include detailed data about sources of income in the previous year. We used information about *current* labor force status rather than information about labor force status in the previous year, because an individual who reported that he or she both worked and received pension income during the previous year might have worked and received pension income *consecutively* rather than *concurrently*.

[7] *Economic Report of the President* (Council of Economic Advisers, February 2000), table B–40, p. 354; and table B–2, p. 308.

[8] See *Employee Benefits in Medium and Large Private Establishments, 1993*, Bulletin 2456 (Bureau of Labor Statistics, November 1994) table 1, p. 8; and *Employee Benefits in Medium and Large Private Establishments, 1997*, Bulletin 2517, table 1, p. 5.

[9] The percentage of awards to women aged 65 and older increased temporarily in 1997 and 1998 as a result of an outreach effort by the Social Security Administration to convert nondisabled widow beneficiaries to a higher status, so they could receive benefits as retired workers.

[10] The *normal retirement age* also is 62 in about a quarter of private pension plans.

[11] On April 7, 2000, the President signed H.R. 5, the Senior Citizens' Freedom to Work Act (P.L. 106–182), which eliminated the earnings test for people at the *full retirement age* (currently age 65) or older, effective January 1, 2000. The earnings test remains in effect for Social Security recipients under the full retirement age.

[12] Testimony of Wilma K. Schopp on behalf of the Association of Private Pension and Welfare Plans before the U.S. Senate Special Committee on Aging, April 3, 2000.

[13] This discussion refers to in-service distributions under *defined benefit* pension plans. In-service distributions under *defined contribution* plans are discussed later in the article.

[14] See, for example, *New Opportunities for Older Workers*, (Washington, DC, Committee for Economic Development, 1999).

[15] Laurene A. Graig and Valerie Paganelli, "Phased Retirement: Reshaping the End of Work," *Compensation and Benefits Management*, vol. 16 no. 2 (spring 2000).

[16] The 586 firms that participated in the survey represent only about 6 percent of the 9,500 employers to whom the survey materials were sent. Thus, caution should be used when interpreting the results of this survey.

[17] In a "tax-qualified" plan, employer contributions to the plan are deductible business expenses for the firm and neither the employer contributions nor investment earnings on those contributions are counted as income to the employee in the years that they occur; instead, pensions are taxed as income when the benefits are paid to plan participants in retirement. Usually, retirees are taxed at a lower marginal tax rate than when they worked.

[18] *Code of Federal Regulations*, § 1.401-1(b)(1)(i).

[19] If a plan participant continues to work for an employer beyond the plan's normal retirement age, the plan must meet the statutory requirements for continued benefit accruals; see 26 U.S.C. § 411(b)(1)(H).

[20] Requirements for qualification of pension plans are defined at 26 U.S.C. § 401(a).

[21] *Employee Benefits in Medium and Large Private Establishments*, Bulletin 2422 (Bureau of Labor Statistics, May 1993) and *Employee Benefits in Medium and Large Private Establishments*, Bulletin 2517 (Bureau of Labor Statistics, September 1999).

[22] *Employee Benefits in Small Private Establishments*, Bulletin 2388 (Bureau of Labor Statistics, September 1991) table 1, page 5; and *Employee Benefits in Small Private Establishments*, Bulletin 2507 (Bureau of Labor Statistics, April 1999), table 1, page 5.

[23] It might also seem reasonable that if legislation were passed to allow in-service distributions from an employer's defined benefit plan at the plan's early retirement age, then distributions from the employer's defined contribution plan should be permitted at the same age (perhaps with a lower limit of 55). However, such a policy would suffer from at least two drawbacks. First, the minimum age for in-service distributions from defined contribution plans, which is now the same for all such plans, would differ from firm to firm, thus making the retirement planning process even more confusing for workers and their families. Second, it would be administratively difficult—and in some cases, perhaps, impossible—to tie the minimum age for in-service distributions in the defined contribution plan to the early retirement age specified in the employer's defined benefit plan.

[24] 26 U.S.C. § 401(a)(4) states that a qualified pension trust is one in which "the contributions or benefits provided under the plan do not discriminate in favor of highly compensated employees (within the meaning of section 414(q))." The term "highly-compensated employee" is defined at 26 U.S.C. § 414(q) as a person who is at least a 5-percent owner of the firm or is paid compensation of at least $85,000 and is among the top 20 percent of employees in the firm with respect to compensation.

[25] 26 U.S.C. § 410(b).

[26] Employers whose approach to phased retirement does not affect eligibility for pension distributions are less likely to violate the IRC nondiscrimination provisions. Examples would be phased retirement plans that involve *only* reductions in hours of work, job sharing, transfers to other duties, or that are based on rehiring retired former employees. These are *conditions of employment* rather than *characteristics of the pension plan*.

[27] H.R. 1102 was ordered reported with amendments by the Senate Finance Committee on September 7, 2000.

Public-service employment programs in selected OECD countries

Public-service employment programs play an important role in many OECD countries; they may be the only effective way to aid those among the long-term unemployed who are less skilled and less well educated

Melvin M. Brodsky

The enactment of the Personal Responsibility and Work Opportunity Reconciliation Act in 1996 transformed the U.S. welfare system into a work-based one. The Act requires most recipients to either find work or lose welfare benefits after not more than 2 consecutive years on welfare. Many former welfare recipients are finding jobs in the private sector; one study of nine States found that between 50 percent and 70 percent of former welfare recipients are working.[1] However, a number of experts have highlighted two potential problems: the low employability of those remaining on welfare and the negative impact of an economic downturn on the ability of many welfare recipients to find jobs. An article in one publication asks whether today's welfare success could be tomorrow's crisis and expresses concern as to what will happen to former welfare recipients when the jobs dry up and the safety net provides limited support for the jobless poor.[2]

The possibility of a future job crisis for those coming off of welfare has prompted numerous researchers to examine the job creation potential of public-service employment programs.[3] Researchers at the Jerome Levy Economics Institute of Bard College suggest establishing a program whereby the Federal Government would "buy" all unemployed labor at a fixed wage and "sell" it—that is, allow the program's labor force to be reduced—when the private sector needs labor and offers those workers a higher wage.[4] The Center on Budget and Policy Priorities in Washington, DC, examined public-service employment initiatives in a number of States and cities and developed a checklist to help guide community leaders preparing to launch new public job creation initiatives.[5] And in a study of public-service employment in the United States, researchers from the Kennedy School of Government of Harvard University concluded that "public service employment and mandatory work programs can provide a legitimate way out of the dilemmas one faces when jobs are scarce but the public and policymakers want to insist on work."[6]

While recent U.S. experience with large-scale Federal public-service employment programs is limited (the last significant effort toward that end was the Comprehensive Employment and Training Act (CETA) program in the 1970s and early 1980s[7]), a number of countries from the Organization for Economic Cooperation and Development (OECD) have maintained such programs as an important labor market policy tool over the past two decades. This article examines trends in public-service employment programs in several European countries in which programs of that nature continue to be, or in the past few years have become, one of the main labor market tools for moving the long-term unemployed into employment.

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Recent U.S. experience

With the enactment of the 1996 Act, public-service employment programs have increased their

numbers in the United States. Welfare reform has permitted States to use their Temporary Assistance for Needy Families block grants to create wage-paying, publicly funded jobs for individuals who meet State-stipulated eligibility requirements. In addition, the new Federal welfare-to-work grants program, administered by the Department of Labor, can be used to fund public-service employment programs to help move longer term welfare recipients into unsubsidized employment. While a number of States are experimenting with various forms of public-service employment, their efforts have been limited.[8] It has been estimated that every month 35,000 recipients of Temporary Assistance for Needy Families are employed in some form of public work, virtually all in New York and Wisconsin. The figure represents just over 1 percent of the more than 3 million families in the Temporary Assistance for Needy Families program as of June 1998.[9]

OECD experience

While the general trend over the past few years among some member countries of the OECD is away from public-service employment programs, such programs continue to be an important tool in helping countries assist the most disadvantaged elements of the labor market. The most recent OECD data show that the average OECD-wide expenditures on public-service employment programs as a percentage of gross domestic product (GDP) and as a percentage of all active labor market programs[10] were 0.14 percent and 15.70 percent, respectively. (See table 1.) However, some OECD countries place a greater emphasis on public-service employment than do others. Belgium, Denmark, Finland,[11] France, Germany, Ireland, the Netherlands, and Sweden have consistently devoted a large share of their GDP and their labor market program budget to public-service employment programs. Until 1994, Switzerland's program was minimal, but in recent years it has steadily increased, and it now accounts for a major share of the country's active labor market programs. (See table 2.)[12] Spending on public-service employment programs in these nine countries averages 0.29 percent of GDP and 22 percent of expenditures on active labor market programs. By way of comparison with the U.S. experience, at its peak, in fiscal year 1979, CETA expenditures on public-service employment (the Title II/IID and Title VI programs) amounted to approximately 0.23 percent of GDP and accounted for more than one-half of the entire CETA budget.[13] If every unemployed person in the United States were provided with a job paying the minimum wage in 1999, the total annual cost spent on public-service employment would be about 0.64 percent of GDP. That is a good deal less than the relative amount Belgium spent on its program in 1985 and only a little more than it spent in 1996 and thereafter.

A review of the literature evaluating these countries' programs shows that, while public-service employment programs have not been effective in reducing the general level of adult unemployment, they appear to help severely disadvantaged labor market groups stay economically active, and they can be effective as part of an overall strategy against social exclusion.[14] An examination of labor market policy in Belgium and the Netherlands provides a good perspective on both the contributions and the limitations of such programs.

Of the nine OECD countries relying most heavily on public-service employment programs, Belgium has consistently had one of the highest unemployment rates (see table 3), while at the same time devoting a higher percentage of its GDP and active labor market program resources to public-service employment (see table 1). The Netherlands similarly had a relatively high unemployment rate in 1985, yet its relative public-service employment expenditure that year was barely one-twentieth that of Belgium. Today, the Netherlands has the lowest unemployment rate of the countries examined in this article, while its resources devoted to public-service employment programs increased from 0.04 percent of GDP in 1985 to 0.43 percent in 1999. Most analysts attribute the improvement in the Dutch labor market to wage restraint and the widespread creation of part-time jobs;[15] analysts attribute Belgium's continuing high unemployment rate to an inflexible wage formation process, high nonwage labor costs, and high levels of employment protection.[16] Neither country relies on public-service employment programs as its primary mechanism to influence the unemployment rate. Instead, both Belgium and the Netherlands use such programs to address the related problems of a high incidence of long-term unemployment and low employment rates. In 1999, long-term unemployment (that is, for a period of more than 12 months) as a percentage of the unemployment rate measured 60.5 percent in Belgium and 43.5 percent in the Netherlands,[17] while the employment rate (in full-time equivalents) remained low in both countries, by OECD standards: 59 percent in Belgium and 57 percent in the Netherlands.[18] Both of these problems result from the slow outflow of prospective workers from unemployment and social welfare programs, and together they are known as the "stock aspect" of the unemployment problem. One explanation for the existence of this phenomenon is the long duration of unemployment insurance benefits. In Belgium, workers can receive benefits indefinitely, and in the Netherlands, workers can receive them for up to 5 years. Moreover, those 57½ years of age are entitled to receive benefits until they retire. Not surprisingly, both Belgium's and the Netherlands' share of GDP devoted to passive labor market programs, primarily unemployment insurance benefits, is very large—indeed, double the OECD average. (See table 1.) Both countries use transitional jobs in the public sector as an alternative to continued dependence on income transfers.

In recent years, a number of countries have introduced new initiatives aimed at moving the long-term unemployed into jobs through public-service employment programs. For example, a major goal of Germany's 1998 Alliance for Jobs

Strategy is twofold: (1) to prevent a buildup in long-term unemployment by opening up job creation programs for those who have been unemployed for at least 6 months, rather than 12 months, and (2) to place greater emphasis on job creation measures carried out within the public sector. Belgium introduced two new programs in 1998: the Progression to Work program and the "Smet" jobs program, a Federal measure designed to employ recipients of unemployment benefits or social assistance in newly created jobs in the private sector. In both, the worker continues to receive an unemployment benefit or social assistance payment while working in a subsidized job. Other new activation initiatives with public-service employment components include Denmark's Labor Market Reform of 1998, which requires earlier "activation" of the long-term unemployed through training or actual public-service employment, Finland's new combination jobs subsidy, which provides, among other things, labor market support plus an employment subsidy, and France's New Start program, which targets those threatened with labor market exclusion and refers them to labor market services, including public-service employment programs. Ireland's direct job creation programs have almost tripled between 1991 and the present. The Netherlands' Offer for All Strategy offers training, work experience, or jobs within the first year of unemployment, and Sweden's new Public Temporary Employment program and Resource Jobs program provide jobs in the public sector. Switzerland's public-service employment programs grew from 0.00 percent of GDP in 1985 to 0.19 percent in 1999. (See

Table 1. OECD countries' expenditures for public-service employment programs, active labor market measures, and passive labor market measures

[In percent]

OECD countries[1]	Public service employment as a percent of GDP	Active measures[2] as a percent of GDP	Public service employment as a percent of active measures[2]	Pasive measures[3] as a percent of GDP
Average	0.14	0.80	15.70	1.25
Australia	.06	.49	12	1.12
Austria	.03	.52	6	1.20
Belgium	**.47**	**1.34**	**35**	**2.51**
Canada	.05	.51	11	.99
Czech Republic	.03	.19	15	.31
Denmark	**.19**	**1.77**	**12**	**3.12**
Finland	**.19**	**1.22**	**24**	**2.33**
France	**.19**	**1.33**	**14**	**1.80**
Germany	**.33**	**1.30**	**25**	**2.12**
Greece	.00	.35	0	.50
Hungary	.13	.40	32	.58
Ireland	**.63**	**1.66**	**38**	**2.42**
Italy	.06	1.10	5	.64
Japan	.00	.09	0	.52
Korea	.21	.49	43	.19
Luxembourg	.00	.30	0	.67
Mexico	.04	.08	50	.0
Netherlands	**.43**	**1.80**	**24**	**2.81**
New Zealand	.03	.62	5	1.57
Norway	.00	.82	0	.47
Poland	.06	.49	12	1.71
Portugal	.05	.85	6	.89
Spain	.09	.81	11	1.41
Sweden	**.21**	**1.84**	**11**	**1.70**
Switzerland	.19	.70	27	1.07
United Kingdom	.00	.37	0	.82
United States	.01	.17	6	.25

[1] Excluding Iceland and Turkey.

[2] Active measures include public employment services, labor market training, youth employment and training measures, subsidized employment, and employment programs for the disabled.

[3] Passive measures include unemployment compensation and payments for early retirement due to labor market measures.

NOTE: Countries discussed in this article, as well as average figures for those countries, are in boldface type. Portugal spent 0.05 percent of GDP for public-service employment in 1997, but the country's expenditures for active labor market measures are not available. Consequently, for comparison purposes, the 0.03 percent the country spent in 1996 is used.

SOURCE: *OECD Employment Outlook*, June 2000, "Statistical annex," table H, "Public expenditure and participant inflows in labor market programs in OECD countries."

Table 2. Direct job creation programs in the public sector, selected OECD countries, 1985 and 1996–99

Country	Expenditures as a percent of gross domestic product					Expenditures as a percent of active labor market measures[1]				
	1985	1996	1997	1998	1999	1985	1996	1997	1998	1999
Belgium	0.79	0.56	0.48	0.47	—	58	38	39	35	—
Denmark	[2].18	.20	.22	.21	.19	16	11	13	13	11
Finland	.38	.53	.40	.30	.19	41	31	26	22	16
France	.00	.22	.19	.19	—	0	16	14	14	—
Germany	.12	.32	.26	.32	.33	15	22	21	25	25
Ireland	.09	.63	—	—	—	6	38	—	—	—
Netherlands	.04	.12	.19	.39	.43	3	8	12	22	24
Sweden	[2].35	.43	.44	.39	.21	15	18	22	20	11
Switzerland	.00	.16	.22	.19	—	0	29	29	27	—

[1] Active labor market measures include public employment services, labor market training, youth employment and training measures, subsidized employment, and employment programs for the disabled.

[2] 1986 figure.

NOTE: Dash indicates data not available.

SOURCE: *OECD Employment Outlook*, 1992 and 2000; from OECD database on labor market programs.

table 2.) These efforts have been supported by a number of international initiatives, such as the European Union's Experimental Action-Research and Project program to combat long-term unemployment, the European Social Fund's program to facilitate the reintegration of the long-term unemployed into the labor market, and the National Action Plans that have been developed as part of an effort to implement the European Employment Strategy.[19] The remainder of the article examines trends in public-service employment programs in the aforementioned countries.

Guaranteed-employment programs

Large-scale national job creation programs that guarantee either temporary or permanent employment have been an important labor market tool within OECD countries for many years. While many of the countercyclical types of programs of the 1980s were scaled down or abolished, those targeted on the long-term unemployed have remained. For the most part, early efforts to address the problem of long-term unemployment through public-service employment programs have proved unsuccessful. Participants seldom learned marketable skills and rarely moved on to jobs in the private sector.

Among the programs that were abolished or scaled back, Denmark's Job Offer program of 1977, which guaranteed 7 months of subsidized work in the public sector to those who had been receiving unemployment benefits for 2½ years, was abolished in 1994. Less than half of all people participating in Job Offer found regular (that is, unsubsidized) jobs afterwards, and a pattern of repeated circulation between long periods of receiving benefits and shorter periods of performing subsidized work emerged.[20] Finland's 1987 Program of Guaranteed Employment sought to employ all of the long-term unemployed (that is, those unemployed for more than 12 months in the previous 2 years). The program had to be scrapped when unemployment skyrocketed from 3.4 percent in 1990 to 17.7 percent in 1993 and it became impossible to marshal the financial and administrative commitments associated with the job guarantee the program offered.[21] Ireland's early efforts to move workers from public-service employment programs into the private sector were not particularly successful. A survey of the old Social Employment Scheme, introduced in early 1985, found that only 18 percent of the participants were employed 18 months after completing the program.[22] The Netherlands created Labor Pools in 1990 to serve as a job of last resort (for example, janitor, gardener, or streetcleaner) for jobseekers who had been unemployed for more than 3 years. The program offered permanent employment contracts to the unemployed, who were then hired out to public institutions. However, the program suffered from deadweight and substitution losses,[23] and few moved out of it. After the first 2 years, only 12 percent of program participants had terminated their contracts. This low percentage led the Netherlands to develop new public-service employment initiatives.[24] Sweden's longstanding (established 1933) Relief Works aimed at encouraging the demand for labor, primarily in public-sector services, by providing a job for a maximum of 6 months at the prevailing market wage rate. Such jobs could be arranged by central or local governments. Evaluations of this program showed little effect, or even a negative impact, on the ability

of participants to find permanent or temporary employment, and consequently, Relief Works jobs diminished in importance during the 1990s. The program is now used primarily to reestablish people's entitlement to unemployment insurance benefits.[25]

Many other public-service employment programs continue today, even though their effectiveness has been questioned and they have often led to the proliferation of subsidized jobs with little movement of their participants into the regular labor market. Belgium's Third Sector of Employment program, introduced in 1982, created permanent jobs in the nonmarket sector to satisfy needs that otherwise would not have been met. These jobs proliferated, and by 1994, more than one-third of public expenditures on labor market programs were devoted to subsidizing 70,000 jobs in the public sector. Few ever left the program for jobs in the private sector.[26] In France, the main public-service employment program is the Community-work Contracts program, which provides part-time jobs in the public sector for a period of 12 months, renewable to 24 months or even 36 months for people facing particular labor market difficulties. Since the program began in 1990, participation has increased greatly. The program is used principally to make beneficiaries eligible once again for unemployment benefits. On average, barely 18 percent of participants had a job in the open labor market 1 year after leaving the program. An evaluation of the program produced the recommendation that it be scaled back and include only beneficiaries with a very low earnings potential.[27] Germany's large-scale subsidized work program, called Support for Job Creation Measures and established in 1991, is reserved primarily for workers who have been unemployed for 6 months or more and is used to requalify them for unemployment benefits. Prior to reforming the program in 1997, little training was associated with it, and because the work that was offered could not compete with work offered by the private sector, jobs did not provide real-world experience for program participants. Consequently, the program was judged as being no more effective than unemployment insurance programs in bringing people back into the regular labor market.[28]

The ineffectiveness of these programs has been attributed to a number of factors. First, those programs which guarantee a slot in a jobs program by a specific time, such as Finland's Program of Guaranteed Employment and Denmark's Job Offer program, seemed to reduce the incentive to look for a job and were thus unsustainable.[29] Second, public-service employment programs to satisfy public needs, such as the Third Sector of Employment program in Belgium, tended to proliferate, and the provision of jobs soon became accepted as a basic public service that could never be ended. Third, job creation programs that served mainly as a means for requalifying participants for unemployment insurance benefits (which was the chief aim in the majority of the programs examined thus far), resulted in the so-called carousel effect—the phenomenon whereby the long-term unemployed alternated between spells of receiving benefits and participating in the program.[30] Fourth, job creation programs with no supportive labor mar-

Table 3. Standardized unemployment rates and incidence of long-term unemployment in selected OECD countries, 1985 and 1996–99

Country	Standardized unemployment rate					Incidence of long-term unemployment[1]				
	1985	1996	1997	1998	1999	1985	1996	1997	1998	1999
Average, European OECD countries	—	10.5	10.3	9.7	9.2	—	47.6	48.0	47.0	45.8
Belgium	10.4	9.7	9.4	9.5	9.0	69.2	61.3	60.5	61.7	60.5
Denmark	—	6.8	5.6	5.2	5.2	38.5	26.5	27.2	26.9	20.5
Finland	6.0	14.6	12.7	11.4	10.3	21.1	34.5	29.8	27.5	29.6
France	10.1	12.4	12.3	11.9	11.3	46.8	39.5	41.2	44.1	40.3
Germany	[3]7.2	8.9	9.9	9.4	8.7	[3]47.9	47.8	50.1	52.6	51.7
Ireland	16.9	11.7	9.9	7.6	5.8	64.1	59.5	57.0	—	—
Netherlands	8.3	6.3	5.2	4.0	3.3	58.7	50.0	49.1	47.9	43.5
Sweden	[2]2.9	9.6	9.9	8.3	7.2	11.4	30.1	33.4	33.5	—
Switzerland	—	3.9	4.2	3.5	—	—	25.0	28.5	34.8	39.8

[1] Unemployment for 12 or more months as a percentage of total unemployed.
[2] 1986 figure.
[3] West Germany only.

NOTE: Dash indicates data not available.
SOURCES: OECD *Employment Outlook*, June 2000 and July 1989; OECD *Economic Outlook*, December 1999.

ket measures, such as job search assistance or training, often did not improve the employment prospects of the target population. The pre-1997 Support for Job Creation Measures program in Germany, Ireland's Social Employment Scheme, and Sweden's Relief Works program are good examples.

Improved programs

On the basis of the experiences recounted in the previous section, the countries in question have worked to strengthen public-service employment programs and their ability to move the unemployed or welfare recipients into the regular labor market. While many problems remain, these programs are becoming more flexible, more targeted to local needs, and better linked to other labor market services.

In pursuit of those ends, Belgium decentralized its employment policies, creating subregional employment committees. In an effort to strengthen the program's linkages to the regular labor market, a guidance plan, or *plan d'accompagnement*, is available to poorly skilled persons who have been unemployed for more than 10 months. The plan is followed by an offer of a job or vocational skills training. In addition, each municipality has to create a Network of Local Employment Agencies to register those unemployed for 3 or more years and to assign these persons to jobs not existing in the regular labor market (for example, household work, gardening, and caring for sick people), for up to a maximum of 45 hours a month. Some have criticized the program because it tends to keep participants unemployed and encourages them to settle into a culture of assistance. As a result, in 1998, the Network of Local Employment Agencies was modified so that its participants would receive an employment contract for an indefinite period and would obtain a wage instead of a supplementary allowance alongside their unemployment benefit entitlement. In 1996, 91,000, or 2 percent of the labor force, were registered in the program.[31] Under the 1998 Labor Market Reform legislation, the public employment service became responsible for ensuring that "activation" offers enhance one's chance of finding a job in the regular labor market. As indicated earlier, Belgium introduced two new job creation programs that year. The Progression to Work program seeks to create additional jobs in the public and nonprofit sectors for the long-term unemployed, especially in cities suffering from high unemployment. The "Smet" jobs program creates service jobs in the private sector that would not ordinarily be created (for example, jobs to protect the environment) and that do not crowd out or substitute for other jobs. Under both programs, employment contracts run from 1 to 3 years. Where appropriate, supplementary training is provided to help the participant get back into the regular labor market.

Denmark's labor market reforms of 1993–94 gave regional labor market officials the authority to design and carry out programs in line with local needs. Programs to "activate" the unemployed may take the form of either training or pool jobs. The latter are jobs created within the public service, including environmental protection, cultural activities, education, and social services. These jobs are limited to 3 years, and 90 percent of the cost of paying participants is refunded by the State. Wages are set to equal unemployment benefits. Denmark adopted new labor laws in December 1998 which stated that those 25 or older and unemployed for 12 of the previous 24 months have the right—indeed, the duty—to take part in active labor market programs. In addition, the public employment service became responsible for ensuring that its offers to the unemployed enhance their chance of getting regular employment. Denmark has also placed increased emphasis on tailoring the activities offered to the needs of the unemployed through an individual action plan.[32]

Finland has shifted its focus of active labor market policies from subsidized jobs to training. However, public-service employment is still an important element of the country's labor market policy. Initiatives by the Government in early 1997 curtailed the possibility of a person's requalifying for unemployment insurance benefits through participation in subsidized job programs. Then, 1998 labor legislation focused subsidized employment on the needs of the long-term unemployed, rather than as an instrument for the country to respond to mass unemployment caused by economic recession. The legislation also introduced a new combination subsidy consisting of labor market support plus an employment subsidy. The support is payable to associations, households, local governments, and enterprises for a period of 12 months and is intended especially to promote employment opportunities in the service sector. In addition, jobseekers' skills are charted during regular, fixed-term interviews, and a jobseeking plan is developed.[33]

Under France's National Action Plan For Employment, which began in October 1998, a New Start program was established. New Start makes use of existing mechanisms and increased resources to target those jobseekers threatened with exclusion from the labor market. The goal is to offer all such jobseekers a "new start" by 2002. Public-service employment, an important element under New Start, is promoted through two types of contracts: community-work contracts and consolidated-employment contracts. The community-work contract program, described earlier, has been reformulated to focus more on those facing the greatest labor market difficulties. In addition, any extension of the duration of a position received under that contract is now linked to skills training that will facilitate the jobholder's movement into the regular job market. The consolidated-employment contract program, which is targeted at those facing the greatest labor market difficulties, is being expanded within associations and local governmental bodies in order to meet unsatisfied community needs. The contract now includes vocational orientation measures, the recognition of acquired skills, and the drawing up of

a list of occupational skills. To implement these and other labor market programs, public employment service resources have been increased, with a focus on those facing the largest labor market obstacles. In 1999, the community-work contract accounted for approximately 425,000 jobs, while the consolidated-employment contract accounted for approximately 60,000 jobs.[34]

Germany's 1997 law reforming the Labor Promotion Act provided for an increased emphasis on vocational training and on-the-job training in the Job Creation Measures program. Participants in the program can now spend 20 percent to 50 percent of their time on such activities. The objectives are to establish a more explicit bridge back into the normal labor market and to provide job search and reintegration services to participants. A major goal of the 1998 Alliance for Jobs Strategy is to prevent the buildup of long-term unemployment, and public-service employment programs have been opened for persons unemployed for at least 6 months rather than 12. In 1998, municipalities were given wide powers to set up job creation projects. The number of participants in eastern Germany increased from 177,000 in January 1998 to 442,000 in November of that year. In a review of the German economy, the OECD noted that these efforts to reduce the official unemployment rate run the risk of making the programs a permanent feature of the German economy, which would be detrimental to the development of the primary labor market. While the OECD supports efforts to move recipients of social assistance into the labor market, it warned that the new German initiative to encourage local governments to place those recipients in work may crowd out jobs in the primary labor market. Of the 700,000 beneficiaries of social assistance who were judged capable of working in 1997, local governments found or created work for some 200,000, of whom about a third were employed under the Job Creation Measures program.[35]

In 1994, Ireland replaced its Social Employment Scheme and several other employment creation programs with the Community Employment program. This program provides some 40,000 part-time jobs (about 3 percent of total employment) in more than 3,000 projects sponsored by public-sector organizations or community groups. One-fourth of these jobs are reserved for persons older than 35 who have been unemployed for more than 3 years, and the remainder are for persons over the age of 21 who have been unemployed for more than 1 year. Participants have an annual contract that is renewable for up to 3 years and are paid an allowance set by the Government in place of unemployment benefits. The program has improved the job prospects of the long-term unemployed by providing 20 days of training, in addition to work experience, in those projects with more than 11 participants. In 1996, 36 percent of participants found jobs, while another 30 percent received further training. A subsequent evaluation of the program led to the recommendation that participants should get more training outside of working hours and should not stay in the program indefinitely, as some have done in the past by taking a 6-month break after completing a session and then enrolling again.[36]

The Netherlands shifted the responsibility for integrating the long-term unemployed into the labor market from the national Government to municipalities so as to be able to better provide services that are most necessary and to tailor those services to those who are in need of them. The 1996 program on Additional Employment for the Long-term Unemployed created 40,000 permanent new jobs, or "Melkert jobs," named after the Dutch minister of social affairs and employment. These jobs, which can be filled only by people who have been unemployed for more than a year, are aimed at increasing public safety, improving care for the disabled and the elderly, managing the environment, and providing services for groups such as the homeless or youths at risk. The jobs are concentrated in the areas of highest unemployment (especially the four largest cities), are 50 percent funded by money saved on benefit payments, pay minimum wages, and are for 32 hours a week (as opposed to the normal working time of 36 hours). In 1998, 20,000 additional "Melkert jobs" were created. Efforts are being made to integrate education and training into the program, give people working in the program priority when they apply for nonsubsidized jobs, and provide bonuses when workers leave the program. While there have been startup and implementation problems (for example, insufficient cooperation among institutions in charge of the programs and a lack of motivation on the part of participants or, even worse, their total unemployability), these jobs may be the only way left for some people to return to the labor market.[37] Complementing "Melkert jobs," the Jobseekers Integration Act of 1998 brought together a number of subsidized employment programs and gave local authorities more freedom to offer customized work in reintegrating the unemployed into the labor market through the promotion of socially useful activities for the lower skilled jobless. Almost three-quarters of the jobs created under the act were in the public sector or with nonprofit organizations, and only one-quarter were in the private-market sector. Employment contracts are offered that combine skills training with financial incentives to return to regular work or that provide a long-term program consisting of training, temporary placement in a job to gain work experience, and, finally, placement into a regular job. The number of employment contracts effected under the Jobseekers Integration Act is estimated to have been about 52,000 in 1998, a figure that is expected to rise to 56,000 in 2001.[38]

Sweden introduced a new form of temporary work experience program in 1993 to keep the unemployed in contact with the labor market. This program, the Employment Development program (known in Sweden by its Swedish acronym, ALU), differs from Relief Works in a number of ways. Specifically, the work provided includes a training component, is usually carried out by nonprofit organizations (such as trade

unions and educational associations) and municipalities, and would not have been carried out without a subsidy.[39] Under the 1998 Resource Jobs program, public-sector employers provide positions for long-term jobless people, who may still collect unemployment benefits on the job. Participants receive benefits, and employers are allowed to supplement the amount of the benefits up to a maximum of 90 percent of the income on which the benefit is based. The duration of a person's participation in the program is 6 months, and 10 percent of the person's time is allocated to a job search. Another new program is Public Temporary Employment, which provides public-service employment for those unemployed persons over the age of 55. The goal is to utilize their skills to improve the quality of work in the public sector. In addition to these programs, the Government has increased public-employment-service resources in order to create individual action plans for those who are at risk of long-term unemployment.[40]

As part of its unemployment insurance reform in 1997, Switzerland made the continued receipt of benefits conditional on participation in active labor market programs, primarily work experience programs. Of the 235,000 persons in active labor market programs in 1998, almost half, or approximately 8 percent of the total employed, were placed in temporary employment slots supplied by the public sector.[41] While the opportunities for training in the early stages of this program were limited, in recent years the Government has placed an increased emphasis on training workers in public-service employment programs in order to assist them in integrating into private-sector jobs. To help implement the new system, a nationwide network of 150 regional placement offices was created. In addition, Switzerland ended the possibility of requalifying for new benefit entitlements through participation in temporary work experience programs.[42]

Trends

The more recent public-service employment programs have become more effective for a number of reasons. First, rather than randomly placing long-term unemployed workers in such programs, countries are now assessing both the needs of the unemployed and the local labor market and then developing individual action plans. Negotiated between an unemployed worker and a public-service employment officer, the plans describe steps to be undertaken by both parties in order to move the unemployed worker to eventual employment in the private sector. For example, Belgium's plans call for guidance for poorly qualified long-term unemployed persons, followed by a job offer or training. Denmark requires that an action plan be drawn up for all those who are unemployed for 2 years, aimed specifically at getting them back into employment. France's New Start plan provides a "path" for the long-term unemployed that includes public-service employment, and Finland updates jobseeking plans after the duration of unemployment reaches 500 days.

Second, and related to the first reason, countries are incorporating skills training and assistance with job searches into their public-service employment programs. For instance, Belgium provides supplementary training under its Progression to Work and "Smet Jobs" programs. Germany's 1997 reform encouraged training in its Job Creation Measures program. Ireland's Community Employment program has improved the job prospects of the long-term unemployed by providing 20 days of training. In the Netherlands, the Jobseekers Integration Act includes a training component in job contracts. Sweden's ALU program includes a skills-training component in public-sector jobs, and its Resource Jobs program allocates time for a job search. Recently, Switzerland's work experience program began placing a greater emphasis on providing training to workers in public-service employment programs.

Third, the role of the public employment service has increased in importance. Belgium, Denmark, France, Sweden, and Switzerland have all emphasized the role of the service in helping to ensure that public-service employment programs are but an intermediate stop on the way to employment in the regular labor market, and not the final destination. Finally, public-service employment efforts have become more locally based, as evidenced by Belgium's Network of Local Employment Agencies, the Netherlands' Jobseekers Integration Act, which provides local officials with more authority to offer work to the unemployed, and Sweden's efforts to give local authorities more freedom to develop projects under the ALU program.

Social enterprises

A number of countries are making increased use of small-scale local or community-based programs that are not entirely distinct from the programs described in the previous sections. These homegrown programs are aimed at generating employment in the "intermediate labor market" via special "reintegration enterprises," or "community businesses."[43] Sometimes referred to as "social enterprises," these structures are set up for the sole purpose of moving the long-term unemployed into the regular labor market. Their activity is conducted in the public interest, and their main objective is not to maximize profit, but to attain certain economic and social goals, such as the end to exclusion of the long-term unemployed from the labor market. For example, they may focus on developing new social services for individuals and families or on improving the environment. These kinds of social enterprises are an alternative to more traditional job creation programs, and preliminary data indicate that they have been highly effective in selecting and training disadvantaged workers and then integrating them into the regular labor market.[44]

In Belgium, different types of social enterprise operate in each region of the country. In the Walloon region of southern

and southeastern Belgium, "training through work enterprises" and "work integration social enterprises" aim to reintegrate the unemployed into the labor market. In the western Flanders region, two types of enterprise are prominent: (1) social workshops provide employment to the most disadvantaged of the unemployed through economic activity in a sheltered environment (not to be confused with sheltered workshops for the disabled); (2) work integration enterprises are commercial establishments whose goal is to create lasting employment for disadvantaged groups in labor-intensive, "socially beneficial" activities. The "company with a social aim" became a new legal form of business on July 1, 1996.[45]

France's Insertion through Economic Activity program, which provides paid employment for those facing particular social and occupational difficulties, has existed for the past 20 years. By 1993, there were some 14,000 participants in temporary job creation and training programs in 560 reintegration companies.[46] A new law passed in July 1998 authorized the French public employment office to organize various "insertion pathways." For example, under the Insertion Enterprises program, those belonging to disadvantaged groups are recruited to produce marketable goods and services under a fixed-term contract of up to 24 months. The contracts can be renewed twice. "Insertion enterprises" are exempted from paying the employer's social security contribution for those persons approved by the public employment office. In addition, these enterprises receive a grant of 50,000 french francs (approximately $7,000) per year to achieve their aims. Other programs are the School Workshops and Insertion Workshops, which provide work experience for persons with very low skills through activities focusing on care for the natural or urban environment.[47]

The German Work Integration Social Enterprises (*Beschäftigungs und Qualifizierungsgesellschaften*, or BQG's) program funds legally independent, not-for-profit organizations whose function is to provide a bridge for disadvantaged groups between unemployment and the regular labor market. Approximately 3,500 to 4,500 projects employ 75,000 to 95,000 participants. The *Gesellschaften zur Arbeitsforderung Beschäftigung und Strukturentwicklung* are "employment and structural development companies" that had their origin in 1991 in the former East Germany. They provide a bridging and training/retraining function for workers shed from State enterprises following reunification. By 1995, there were 400 companies with some 155,000 participants.[48]

Ireland defines social enterprises as those companies, cooperatives, and associations that promote the social welfare. A number of Government bodies—primarily the Ministry of Health and the Enterprise and Employment Ministry—help to finance the social economy sector.[49] Recently, the Government decided to cut 5,000 places in its Community Employment program and shift the funds to more direct spending on a new "social economy" program.[50]

In the Netherlands, local communities are cooperating with other organizations, such as welfare and volunteer organizations, in experiments aimed at stimulating participation in unpaid activities while people retain their social assistance benefits. The goals are to prevent and combat social exclusion by offering a work perspective to people for whom finding employment seems an almost impossible task. Another program allows municipalities to experiment with programs to provide socially useful employment-related activities for recipients of benefits. More than 160 experimental projects have been introduced in 25 cities. Municipalities have directly organized placements, worked with existing welfare and voluntary organizations, or created partnerships. The objectives of the experiments are to prepare people to return to work and to prevent social exclusion and isolation.[51]

Sweden also has utilized social enterprises as a means of ending long-term unemployment. The Swedish Cooperative Institute and the Swedish Institute for Social Economy examined the effect of the social economy on local employment. The results show a positive impact on job creation in many regions and lower rates of unemployment.[52]

The benefits of the programs mentioned in this section are that they cost less, serve local communities' needs better, provide work experience closer to the "real economy" than is typically the case in more traditional public-service employment programs, and often do a better job integrating skills training with work experience. The problem with such programs is that they are often small and serve a limited number of people. It is unclear what impact expanding them would have on their effectiveness.

THIS ARTICLE HAS REVIEWED PAST ATTEMPTS by selected OECD countries to develop public-service employment programs. Problems associated with the implementation of these programs have been identified and recent efforts to improve their effectiveness highlighted. Public-service employment programs continue to be an important component of labor market policy in many OECD countries. A panel of experts representing 11 OECD countries examined the effectiveness of measures to assist the long-term unemployed and concluded that the direct creation of jobs through public-service employment programs may be the only way to help many of the unskilled and less well-educated long-term unemployed.[53] A recent review of what works among active labor market programs reports that public-service employment programs appear to be making a comeback in some OECD countries, especially as part of a "reciprocal obligation" on the unemployed in return for continued social assistance benefits.[54] □

Notes

[1] Jack Tweedie and Dana Reichert, "Tracking Recipients After They Leave Welfare: Summaries of State Follow-up Studies," National Conference of State Legislators, based on paper presented at conference of Ameri-

can Public Welfare Association and National Governors' Association, Falls Church, VA, Feb. 26–27, 1998.

[2] Aaron Bernstein, "Will Today's Welfare Success Be Tomorrow's Crisis," *Business Week*, Dec. 6, 1999.

[3] The term "public-service employment" refers to the public funding of jobs in public or nonprofit agencies.

[4] Dimitri B. Papadimitriou, *Full Employment Has Not Been Achieved*, report no. 53 (Annandale-on-Hudson, NY, The Jerome Levy Economics Institute of Bard College, 1999); on the Internet at **http://www.levy.org/**.

[5] Clifford M. Johnson, *Checklist for Identifying Quality Work Sites for Public Job Creation Programs* (Washington, DC, Center on Budget and Policy Priorities, 1999); on the Internet at **http://www.cbpp.org/12–23–99wtw.htm**.

[6] David T. Elwood and Elisabeth D. Welty, *Public Service Employment and Mandatory Work: A Policy Whose Time Has Come and Gone and Come Again?* (Cambridge, MA, Harvard University, Kennedy School of Government, Mar. 6, 1999); on the Internet at **http://www.jcpr.org/wpfiles/elwood-welty.pdf**.

[7] Evidence regarding outcomes of CETA's public-service employment program was mixed, and throughout the effort, the local delivery of Federal public-service employment was beset with administrative problems. (See Robert F. Cook, Charles F. Adams, and V. Lane Rawlings, *Public Service Employment, the Experience of a Decade* (Kalamazoo, MI, W. E. Upjohn Institute for Employment, 1985).) As a result, since those findings, U.S. policymakers have not given serious consideration to reintroducing large-scale Federal public-service employment as a tool to combat economic recessions.

[8] See Robert Rector, "Wisconsin's Welfare Miracle," *Policy Review*, March–April 1997 (on the Internet at **http://www.policyreview.com/mar97/rector.html**), for a good description of the unique way in which that State is using public-service employment to get people into full-time work.

[9] Elwood and Welty, *Public Service Employment and Mandatory Work.*

[10] All active labor market programs include public-employment services, labor market training, youth employment and training measures, subsidized employment, and employment programs for the disabled.

[11] While subsidized public-service employment has been one of the primary tools for getting the long-term unemployed back to work in Finland, the current view is that *too much* emphasis has been placed on it. Although expenditures continue to be high compared with those of other OECD countries, public-service employment has been scaled back in recent years. See "Active and Passive Labor Market Policies in Finland," *Employment Observatory, Trends*, no. 28, summer 1997, pp. 62–65.

[12] Although Korea currently devotes considerable resources to public-service employment, it had no such programs until 1998; for that reason, Korea is not examined in this article.

[13] The U.S. Department of Labor fiscal-year 1983 budget document reports that in 1979 the budget authorized $2.5 billion for Title II/IID public-service employment and $3.4 billion for Title VI temporary employment assistance.

[14] John Martin, "What Works Among Active Labour Market Policies: Evidence From OECD Countries' Experiences," *OECD Economic Studies*, no. 30 (Paris, Organization for Economic Cooperation and Development, 2000).

[15] Gunther Schmid, "The Dutch Employment Miracle? A Comparison of the Employment Systems in the Netherlands and Germany," *Employment Observatory, MISEP Policies*, no. 59, autumn 1997, pp. 23–31.

[16] *Economic Survey of Belgium* (Paris, Organization for Economic Cooperation and Development, 1997).

[17] *Employment Outlook* (Paris, Organization for Economic Cooperation and Development, 2000).

[18] *Economic Survey of Netherlands* (Paris, Organization for Economic Cooperation and Development, 2000).

[19] *Employment in Europe, 1999* (Brussels, European Commission, 1999).

[20] *The Public Employment Service: Denmark, Finland, Italy* (Paris, Organization for Economic Cooperation and Development, 1996).

[21] *Social Assistance Programs in Australia, Finland, Sweden and the United Kingdom* (Paris, Organization for Economic Cooperation and Development, 1996).

[22] *Economic Survey of Ireland* (Paris, Organization for Economic Cooperation and Development, 1997).

[23] "Deadweight" means that the job would have been created, regardless of whether the program existed. "Substitution" means that the program participant was selected for the job in place of someone who did not participate in the program.

[24] *Economic Survey of the Netherlands* (Paris, Organization for Economic Cooperation and Development, 1998).

[25] Nigel Meager, with Ceri Evans, *The Evaluation of Active Labor Market Measures for the Long-term Unemployed* (Geneva, International Labor Office, 1998); on the Internet at **http://www.ilo.org/public/english/employment/strat/publ/etp16.htm**. See also Anders Forslund and Alan B. Krueger, *An Evaluation of the Swedish Active Labor Market Policy: New and Received Wisdom*, Working Paper No. 4802 (Cambridge, MA, National Bureau of Economic Research, July 1994).

[26] *The Public Employment Service: Belgium* (Paris, Organization for Economic Cooperation and Development, 1997).

[27] *Economic Survey of France* (Paris, Organization for Economic Cooperation and Development, 1997).

[28] Meager with Evans, *Evaluation of Active Labor Market Measures.*

[29] Lars Calmfors, "Active Labor Market Policies and Unemployment—a Framework for the Analysis of Crucial Design Features," *Labor Market and Social Policies Occasional Paper No. 15* (Paris, Organization for Economic Cooperation and Development, 1994).

[30] Martin, "What Works Among Active Labour Market Policies."

[31] "Active and Passive Labor Market Policies in Belgium," *Employment Observatory, MISEP SYSDEM Trends*, European Commission, Berlin, no. 28, summer 1997, pp. 10–14.

[32] "Third Phase of the Danish Labor Market Reform," *Employment Observatory, MISEP Policies*, European Commission, Berlin, no. 65, spring 1999.

[33] "Reforming Employment Office Services, Finland," *Employment Observatory, MISEP Policies*, European Commission, Berlin, no. 61, spring 1998. See also *National Action Plan for Employment, Finland* (Berlin, European Union, 1998); on the Internet at **http//www.ias-berlin.de/ias/links/links_en.htm**.

[34] "The Struggle Against Exclusion: Employment Promotion Measures," *Employment Observatory, MISEP Policies*, European Commission, Berlin, autumn 1998, no. 63. See also "France—National Action Plan for Employment," *Employment Observatory, MISEP Policies*, European Commission, Berlin, spring 1999, no. 65.

[35] *Economic Survey of Germany* (Paris, Organization for Economic Co-

operation and Development, 1998).

[36] *Economic Survey of Ireland* (Paris, Organization for Economic Cooperation and Development, 1999).

[37] *Economic Survey of the Netherlands.*

[38] *The Local Dimension of Welfare to Work: An International Survey* (Paris, Organization for Economic Cooperation and Development, 1999).

[39] *The Public Employment Service: Austria, Germany, Sweden* (Paris, Organization for Economic Cooperation and Development, 1996).

[40] *National Action Plan for Employment, Sweden* (Berlin, European Union, 1998, 1999); on the Internet at **http//www.ias-berlin.de/ias/links/links_en.htm**.

[41] The legal requirement that the activities of workers in subsidized temporary employment programs not compete with the primary labor market is the chief reason for the large number of workers participating in public-service employment programs.

[42] *Economic Survey of Switzerland* (Paris, Organization for Economic Cooperation and Development, 1999).

[43] Meager with Evans, *Evaluation of Active Labor Market Measures.*

[44] *Social Enterprises* (Paris, Organization for Economic Cooperation and Development, 1999).

[45] *Ibid.*

[46] Meager with Evans, *Evaluation of Active Labor Market Measures.*

[47] "France—National Action Plan for Employment."

[48] Meager with Evans, *Evaluation of Active Labor Market Measures.*

[49] *Social Enterprises.*

[50] *Survey of Ireland.*

[51] "France—National Action Plan for Employment."

[52] *Social Enterprises.*

[53] "The Long-term Unemployed and Measures to Assist Them," *Labor Market and Social Policy Occasional Paper No. 7* (Paris, Organization for Economic Cooperation and Development, 1992).

[54] Martin, "What Works Among Active Labour Market Policies."

Reasons for working multiple jobs

People become multiple jobholders for a variety of reasons. Of the 8.5 million people who worked more than one job in May 1997, 4 out of every 10 did so to meet regular household expenses or to pay off debt. According to data from the Current Population Survey, other common reasons for working more than one job included enjoying the work on the second job, wanting to save for the future, wanting to get experience or build up a business, and wanting some extra money to buy something special. (See chart.)

The reasons for multiple jobholding varied noticeably among demographic groups. For example, the proportion working more than one job to pay off debts was highest among those aged 16 to 24 (18.2 percent) and then declined with age to a low of 2.1 percent for those 65 and older. (See table.) Young workers (aged 16 to 24) also were the most likely to hold an extra job in order to get money to buy something special. The group aged 55 and older had the greatest percentage of workers who reported that they worked more than one job because they enjoyed the work on the second job (27 percent). These workers were almost twice as likely as adults aged 25 to 54, and nearly 6 times as likely as teenagers, to moonlight for this reason. The proportion of multiple jobholders who worked more than one job to pay regular household expenses was about 10 percentage points lower for older workers than for persons aged 25 to 54. Nevertheless, nearly a fourth of multiple jobholders aged 55 and older gave this as the reason for working more than one job.

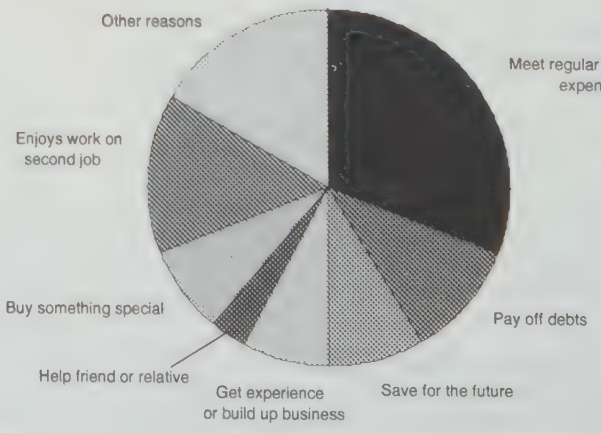
In general, men and women worked more than one job for the same reasons. The sharpest disparities between the sexes occurred among older workers. A large proportion of men aged 55 and older (30.8 percent) worked more than one job because they enjoyed the work on the second job; this compares with 21.8 percent of older women. Older women, on the other hand, were most likely to moonlight in order to meet regular household expenses or to pay off debts—36.3 percent, versus 22.2 percent for older men.

For women who maintained families, the overwhelming reason for working multiple jobs was to meet regular expenses or to pay off debts (64.5 percent); this compares with 49.4 percent of men who maintained families.

A greater percentage of blacks (53.2 percent) and of Hispanics (49.0 percent) than of whites (39.5 percent) also reported that they worked more than one job to meet regular household expenses or to pay off debts. About 15 percent of whites were multiple jobholders because they enjoyed the work on the second job; this was slightly higher than the proportion among blacks and triple the proportion among Hispanics.

As the current economic expansion has continued past May 1997, the number of multiple jobholders has edged down. As mentioned above, in May 1997 and in May 1991, about two-fifths of multiple jobholders worked more than one job in order to meet regular household expenses or to pay off debts. It may be that the number of multiple jobholders has edged down during the period since May 1997 because the continuing strength in the economy has enabled them to meet regular household expenses or pay off debts without having to work more than one job.

Reasons for working more than one job, May 1997



This report was prepared by Jennifer L. Martel of the Office of Employment and Unemployment Statistics, Bureau of Labor Statistics, and is based on *Issues in Labor Statistics*, Summary 0015 (Bureau of Labor Statistics, 2000).

Multiple jobholders by age, race, Hispanic origin, sex, marital status, and reason for working at more than one job, May 1997

Characteristic	Total (thousands)	Percent distribution by reason								
		Total	To meet regular household expenses	To pay off debts	To save for the future	To get experience or build up a business	To help out a friend or relative	To get extra money to buy something special	Enjoys the work on the second job	Other reasons
Total, 16 years and older	8,751	100.0	30.9	10.5	8.7	7.7	3.2	7.9	14.5	16.6
16 to 24 years	1,274	100.0	24.7	18.2	11.4	5.2	2.3	13.0	6.5	18.5
25 to 34 years	2,054	100.0	34.7	14.2	8.3	9.2	2.4	7.5	10.4	13.4
35 to 44 years	2,607	100.0	32.7	8.1	9.5	8.5	3.7	6.8	15.4	15.3
45 to 54 years	1,986	100.0	31.5	7.6	7.2	8.0	3.8	5.8	17.3	18.8
55 years and older	829	100.0	23.6	4.6	6.1	5.0	3.8	9.4	27.0	20.6
Men, 16 years and older	4,720	100.0	29.3	10.4	10.1	8.4	2.8	7.4	15.9	15.8
16 to 24 years	647	100.0	25.3	17.7	13.2	6.6	3.5	13.5	7.4	12.7
25 to 34 years	1,143	100.0	33.6	16.2	9.8	7.9	1.9	5.0	11.5	14.1
35 to 44 years	1,419	100.0	32.6	7.3	11.0	9.3	2.2	6.8	16.0	14.8
45 to 54 years	1,033	100.0	27.4	6.9	9.3	9.1	3.7	6.5	19.0	18.1
55 years and older	478	100.0	19.1	3.1	5.7	7.6	3.8	8.5	30.8	21.6
Women, 16 years and older	4,031	100.0	32.7	10.7	7.0	7.0	3.7	8.5	12.8	17.6
16 to 24 years	628	100.0	24.1	18.8	9.6	3.9	1.1	12.5	5.6	24.3
25 to 34 years	912	100.0	36.0	11.6	6.3	10.8	3.0	10.7	9.1	12.4
35 to 44 years	1,188	100.0	33.0	9.0	7.8	7.4	5.4	6.8	14.7	15.9
45 to 54 years	953	100.0	35.9	8.3	4.9	6.8	4.0	5.1	15.6	19.5
55 years and older	351	100.0	29.6	6.7	6.7	1.5	3.8	10.7	21.8	19.3
White	7,566	100.0	29.7	9.8	8.8	8.0	3.5	8.0	15.2	17.0
Black	874	100.0	39.0	14.2	7.9	5.6	1.4	6.9	11.4	13.8
Hispanic origin	557	100.0	39.5	9.5	9.7	5.4	3.0	11.2	4.6	17.0
Men:										
Single	1,238	100.0	24.4	15.6	11.1	8.0	2.4	10.1	10.3	18.0
Married, spouse present	2,910	100.0	31.2	8.1	10.1	8.3	3.0	6.3	19.2	13.9
Widowed, divorced, or separated	573	100.0	30.6	10.5	7.8	9.8	2.8	7.1	11.0	20.3
Women:										
Single	1,145	100.0	28.7	15.6	9.4	3.5	2.5	12.9	9.0	18.3
Married, spouse present	1,941	100.0	28.8	7.2	6.5	9.9	4.1	7.4	16.5	19.6
Widowed, divorced, or separated	946	100.0	45.4	12.2	4.9	5.1	4.4	5.4	9.9	12.8
Women who maintain families	577	100.0	52.6	11.9	5.0	1.6	2.0	6.1	8.3	12.4

NOTE: Data on the number of multiple jobholders differ from the regularly published monthly data because of differences in the estimation procedures used to produce the data. Detail may not sum to 100 percent due to rounding. Detail for race and Hispanic-origin groups will not sum to totals because data for the "other races" group are not presented and Hispanics are included in both the white and black population groups.

For whom the tide rises

Katharine L. Bradbury, in her article "Rising Tide in the Labor Market: To What Degree Do Expansions Benefit the Disadvantaged?" (*New England Economic Review,* May/June 2000) examines whether the decade of the 1990s has proven to be a true labor boon, for whom, and to what extent. She writes that some groups may experience disadvantages in the labor market, which "may be attributable to barriers in the labor market as well as to differences in group characteristics such as educational attainment. Different reasons for disadvantage suggest different likely responses to the business cycle." Has the "rising tide," in fact, lifted all boats?

In general, Bradbury notes that blacks and whites, teenagers and adults all have felt positive effects from the economic expansion. The downside, though, has been "when one asks whether a strong economy raises all boats to the same level, [it appears that] disadvantaged groups still have above-average unemployment." The author has found that educational attainment remains the key element as to whether a person will be able to ride the high points of the crest or be contented to coast along at the lowest points of the trough.

In the Internet boat

The Industry Standard, a newsweekly covering the Internet Economy, wanted to find out how 'Net workers were doing in terms of job satisfaction. Their study gathered data about each respondent and their compensation package, job satisfaction, and benefits of Internet Economy employees in online and offline firms.

What floated the Internet workers' boats? "Challenging work" had the biggest impact on job satisfaction. Salary was a close second. "Not options—cash money," reported the *Standard's* Maryann Jones Thompson in the September 11 issue (**www.thestandard.com/article/display/0,1151,18386,00.html**), "[a]nd this workforce demonstrated a true work-hard-play-hard ethic: Paradoxically, working weekends and receiving lots of vacation time were equally strong predictors of happiness at work."

This research, which was conducted after the dot.com stock market tide went out, found that workers are pretty realistic about the Internet Economy: "Most know their chance to retire at 30 may not materialize but still feel fortunate to be working for a company that values its employees." But this does not seem to have discouraged the 'Net set—more survey respondents reported being very satisfied at work this year than last year.

Ability and returns to schooling

To what extent does ability explain the rise in the return to education observed in the past couple of decades? Measurement problems related to this question are addressed in a recent paper by James Heckman of The University of Chicago (who is one of this year's Nobel Prize winners in Economics) and Edward Vytlacil of Stanford University.

In "Identifying the Role of Cognitive Ability in Explaining the Level of and Change in the Return to Schooling," (NBER Working Paper No. 7820), Heckman and Vytlacil describe possible explanations for why the ability bias may have increased over time, therefore increasing the measured return to education. It may be that the modern economy provides a greater return to ability than the economy of decades ago; also, the amount of schooling that individuals receive may be more correlated now with their ability than in the past, if enrollment is now more merit-based than in the past.

Heckman and Vytlacil note that the ability bias is usually considered to be a problem of omitted variables. The data sets that have been used to measure the economic return to education tend to lack a measure of individual ability. However, in this paper, Heckman and Vytlacil analyze a data set that does contain measures of ability—the National Longitudinal Survey of Youth (NLSY). Data from this survey, whose participants were between the ages of 14 and 22 in 1979, include scores from a battery of 10 intelligence tests. Heckman and Vytlacil use the first principal component of the test scores as a measure of general intelligence. To perform their analysis, they classified individuals by ability and education, into what are called "cells." Their analysis is confined to data for white males, as the data are too sparse within cells for other groups to permit analysis.

Heckman and Vytlacil show that education and ability have such a strong association that the effects of the two on wages cannot be separated for all groups. For example, they find that (within age groups) the wage differential between college graduates and high school graduates rose in the mid 1980s for young workers in the highest quartile of ability but not for those in the next highest quartile. Furthermore, there are so few college graduates in the lowest two quartiles of ability that the college-high school differential cannot even be identified in those quartiles. □

We are interested in your feedback on this column. Write to: Executive Editor, *Monthly Labor Review*, Bureau of Labor Statistics, Washington, DC, 20212, or e-mail MLR@bls.gov

A third way

Nonunion Employee Representation: History, Contemporary Practice, and Policy. Edited by Bruce Kaufman and Daphne Taras. Armonk, NY, M.E. Sharpe, Inc., 2000, 576 pp. $87.95.

Today, employees have two approaches in dealing with management on matters of wages, benefits, and working conditions. They can approach management as individuals and hope to gain a hearing for their concerns. If that approach fails, they can simply accept their fate or pursue the issue through litigation as an individual. Such litigation may be popular, but using the courts to resolve grievances can be an expensive and time-consuming process for employers and employees.

The other approach is to organize as a group and bargain collectively. Latest data from the Bureau of Labor Statistics indicate that only 13.9 percent of the workforce were members of unions. While it is legally possible for most employees to choose representation through collective bargaining, in reality relatively few have opted to resolve their grievances in that manner. It is possible that fewer of today's employees choose union representation because they are happier with their working conditions than in the past. It is also possible that workers simply do not consider traditional labor organizations to be a viable solution for their workplace problems.

In the United States, there once was another choice for employees. Until passage of the Wagner Act in 1935, workers could express themselves through nonunion employee representation [NER]. In a NER, workers meet with managers in an employer-created group to jointly consider relevant employee-related issues. A NER might take several forms, ranging from a worker council to a so-called company union. In their book, *Nonunion Employee Representation*, Bruce Kaufman and Daphne Taras reignite the discussion of this option that is currently illegal in the United States but still practiced in other countries such as Canada.

Of course, they are not the first to call for reconsideration of the ban on NER. The modern discussion of allowing management-controlled employee councils erupted in 1992, when the National Labor Relations Board (NLRB) ruled that Electromation's employee committee constituted an unfair labor practice by declaring it a company-created labor organization. This ruling was followed by the unsuccessful attempt in 1996 to pass legislation in Congress known as the Teamwork for Employees and Management [TEAM] Act. After those two events, very little has been said about nonunion employee representation until publication of this new work.

Through a series of essays by a variety of writers, the two professors show the history, theory and practice of various NERs in the United States and Canada. The first 100 pages of the book are spent cataloging the history of nonunion employee representation in the United States and Canada, followed by pages of theory and a thorough discussion of contemporary practice in other parts of the world. Beyond the essays authored entirely or in part by the editors, other essays are provided by academics from a variety of universities in the United States, Canada, England, Germany, and Japan. Much of the work is devoted to showing the advantage of NER in various cultures and placing the NLRB's ban in its historical context.

These sections are followed by almost 75 pages devoted to practitioner commentaries by labor relations practitioners and several labor attorneys, as well as employees who have participated in employer-employee councils. These authors share their personal experiences with nonunion employee representation. Two individuals concerned with labor policy in the United States and Canada give their perspective in the final essays in the book. In their concluding chapter, Kaufman and Taras outline their arguments for repeal of the NER ban. They believe the special situation that existed when the Wagner Act was enacted is no longer applicable and suggest that NER is especially valuable in today's labor environment.

While the two editors indicate in their own essays their preference for repeal of the present ban on NER, they do include essays by authors who adamantly oppose their view. Jonathon Hiatt and Laurence Gold make an energetic argument against proposals such as TEAM. The General Counsel and Assistant General Counsel for the AFL-CIO believe that creation of employer-established workplace organizations would be one more barrier to true employee representation. Reg Basken, Secretary-Treasurer of the Communications, Energy, and Paperworkers Union in Canada also expresses his concerns with allowing so-called "company" (or as he calls them, "donkey") unions in the United States. Rather than opposing the repeal of the ban on NER, he argues that such repeal should be tied to elimination of right-to-work laws in the United States.

Perhaps because so little has been written lately on this subject, the editors felt it necessary to include so much material in one volume. At 576 pages, the book includes 18 articles and 12 case studies. It attempts to serve as both a single-volume reference work on the subject and as an advocate for reconsideration of NER by policymakers. Although not technically difficult to understand, the amount of content might be a bit daunting to the casual reader and the nonacademic. Readers may wish to read the chapters selectively based on their personal interests in matters of labor history, contemporary labor policy and so on.

As the editors point out in their conclusion, current labor theory dictates that high performance workplaces require high levels of employee involvement in decisions affecting the firm. By outlawing nonunion employee representation in 1935, Congress limited em-

ployee choices as to the proper manner of that involvement. The book raises an interesting issue as to whether the American workforce still needs legislative protection from this form of employer-employee cooperation in determining the fundamental issues in the workplace.

—Michael Wald
Bureau of Labor Statistics
Atlanta region

World labor market trends

Key Indicators of the Labor Market. Geneva, International Labor Organization, 1999, 600 pp. $99.50, paper; $99.50, CD-ROM; $180, print and CD set. Available in the United States from ILO Publications Center, Waldorf, MD 20604-0753.

The International Labor Organization's *Key Indicators of the Labor Market* not only allows a snapshot look at the labor market situation across approximately 240 countries, areas, and territories, but also allows the comparison of trends in these places. Eighteen indicators are grouped into seven subject areas: participation in the world of work; employment indicators; unemployment, underemployment and inactivity indicators; an educational attainment and illiteracy indicator; wage and labor costs indicators; labor productivity and unit labor cost indicators; and poverty and income distribution indicators. Each indicator is presented along with descriptive text that gives some guidance on how it might be used.

The primary sources for the book are other international repositories of information. In principle, the diligent analysts could reproduce *Key Indicators* from these sources. But that would be a big task requiring a number of subtle technical judgments. The added value of the book is that by processing and repackaging the information, and providing expert guidance on issues related to using it, *Key Indicators* has made this information accessible to the majority of analysts who have neither the time, the connections, nor the inclination to get and use it in its less refined form.

In my view, *Key Indicators* has two particular strengths. The first is that it is more than just a book. It also comes on CD-ROM. The CD not only provides the exact same information as the book, it provides even more, and it allows analysts freer range in manipulating the information according to their needs. The book's CD-ROM is generally easier to use than others I have tried. Of particular note are the links it provides to the book's website and other sites of interest, and the fact that there is an immediate way of knowing how much and where the information is available. The book's information is also presented in a separate paper volume of country profiles, so users interested in an immediate statistical profile of a certain country's labor market have one just at their fingertips.

Key Indicators' other strength is the guidance it provides on information comparability across countries and over time. With some work, a careful analyst could divide information for a particular indicator across countries into more or less comparable groups and restrict or appropriately qualify analysis according to this distinction. But even though the book is already vastly better on giving guidance about international comparability than many other repositories, I still want more. For instance, it would be very useful if future versions of the CD-ROM allowed users to select information on the basis of some pre-programmed comparability criteria, in much the same way that they can now select information on characteristics such as gender, age group, geographical location and so forth.

My one criticism of *Key Indicators* is that the examples of analyses that can be carried out are written in a way that suggests that rather conclusive answers are possible using only the book's information. For example, in its analysis of its relationship between labor force participation rates and economic development, there is a conclusive explanation of the relationship as related to shifts from agriculture to urban activities and increasing relative earnings of prime-age male workers. I have no particular quarrel with the analysis or its conclusion; I wish simply to point out that sources of information other than the book must have been drawn upon to support it. *Key Indicators* information can provide good indicators of plausible hypotheses and where to look for answers, but more conclusive analyses can come only from more in-depth sources of information.

One source of information to carry out a more in-depth analysis would be the microdata (household or establishment level) from which the indicators ultimately have been tabulated. The book's website already contains contact information and some links to national statistical sources. It would be quite a useful tool to researchers if these links could be expanded to include links to the original microdata and documentation for using it. All the better if the *Key Indicators* team could provide a common interface for accessing this information.

With its very first edition, the book already provides an indispensable tool to analysts seeking a look at major trends in the world's labor markets. The skeleton of a network to the information behind these trends also has been built. Researchers, policy analysts, and the policy makers and others whom they inform should all benefit from the knowledge contained in this book. We should all say thank you.

—Kenneth A. Swinnerton
Bureau of International Labor Affairs
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This section of the *Review* presents the principal statistical series collected and calculated by the Bureau of Labor Statistics: series on labor force; employment; unemployment; labor compensation; consumer, producer, and international prices; productivity; international comparisons; and injury and illness statistics. In the notes that follow, the data in each group of tables are briefly described; key definitions are given; notes on the data are set forth; and sources of additional information are cited.

General notes

The following notes apply to several tables in this section:

Seasonal adjustment. Certain monthly and quarterly data are adjusted to eliminate the effect on the data of such factors as climatic conditions, industry production schedules, opening and closing of schools, holiday buying periods, and vacation practices, which might prevent short-term evaluation of the statistical series. Tables containing data that have been adjusted are identified as "seasonally adjusted." (All other data are not seasonally adjusted.) Seasonal effects are estimated on the basis of past experience. When new seasonal factors are computed each year, revisions may affect seasonally adjusted data for several preceding years.

Seasonally adjusted data appear in tables 1–14, 16–17, 39, and 43. Seasonally adjusted labor force data in tables 1 and 4–9 were revised in the February 2000 issue of the *Review*. Seasonally adjusted establishment survey data shown in tables 1, 12–14 and 16–17 were revised in the July 2000 *Review* and reflect the experience through March 2000. A brief explanation of the seasonal adjustment methodology appears in "Notes on the data."

Revisions in the productivity data in table 45 are usually introduced in the September issue. Seasonally adjusted indexes and percent changes from month-to-month and quarter-to-quarter are published for numerous Consumer and Producer Price Index series. However, seasonally adjusted indexes are not published for the U.S. average All-Items CPI. Only seasonally adjusted percent changes are available for this series.

Adjustments for price changes. Some data—such as the "real" earnings shown in table 14—are adjusted to eliminate the effect of changes in price. These adjustments are made by dividing current-dollar values by the Consumer Price Index or the appropriate component of the index, then multiplying by 100. For example, given a current hourly wage rate of $3 and a current price index number of 150, where 1982 = 100, the hourly rate expressed in 1982 dollars is $2 ($3/150 x 100 = $2). The $2 (or any other resulting values) are described as "real," "constant," or "1982" dollars.

Sources of information

Data that supplement the tables in this section are published by the Bureau in a variety of sources. Definitions of each series and notes on the data are contained in later sections of these Notes describing each set of data. For detailed descriptions of each data series, see *BLS Handbook of Methods*, Bulletin 2490. Users also may wish to consult *Major Programs of the Bureau of Labor Statistics*, Report 919. News releases provide the latest statistical information published by the Bureau; the major recurring releases are published according to the schedule appearing on the back cover of this issue.

More information about labor force, employment, and unemployment data and the household and establishment surveys underlying the data are available in the Bureau's monthly publication, *Employment and Earnings*. Historical unadjusted and seasonally adjusted data from the household survey are available on the Internet:

http://stats.bls.gov/cpshome.htm

Historically comparable unadjusted and seasonally adjusted data from the establishment survey also are available on the Internet:

http://stats.bls.gov/ceshome.htm

Additional information on labor force data for areas below the national level are provided in the BLS annual report, *Geographic Profile of Employment and Unemployment*.

For a comprehensive discussion of the Employment Cost Index, see *Employment Cost Indexes and Levels, 1975–95*, BLS Bulletin 2466. The most recent data from the Employee Benefits Survey appear in the following Bureau of Labor Statistics bulletins: *Employee Benefits in Medium and Large Firms; Employee Benefits in Small Private Establishments;* and *Employee Benefits in State and Local Governments*.

More detailed data on consumer and producer prices are published in the monthly periodicals, *The CPI Detailed Report* and *Producer Price Indexes*. For an overview of the 1998 revision of the CPI, see the December 1996 issue of the *Monthly Labor Review*. Additional data on international prices appear in monthly news releases.

Listings of industries for which productivity indexes are available may be found on the Internet:

http://stats.bls.gov/iprhome.htm

For additional information on international comparisons data, see *International Comparisons of Unemployment*, BLS Bulletin 1979.

Detailed data on the occupational injury and illness series are published in *Occupational Injuries and Illnesses in the United States, by Industry*, a BLS annual bulletin.

Finally, the *Monthly Labor Review* carries analytical articles on annual and longer term developments in labor force, employment, and unemployment; employee compensation and collective bargaining; prices; productivity; international comparisons; and injury and illness data.

Symbols

n.e.c. = not elsewhere classified.
n.e.s. = not elsewhere specified.
p = preliminary. To increase the timeliness of some series, preliminary figures are issued based on representative but incomplete returns.
r = revised. Generally, this revision reflects the availability of later data, but also may reflect other adjustments.

Comparative Indicators

(Tables 1–3)

Comparative indicators tables provide an overview and comparison of major BLS statistical series. Consequently, although many of the included series are available monthly, all measures in these comparative tables are presented quarterly and annually.

Labor market indicators include employment measures from two major surveys and information on rates of change in compensation provided by the Employment Cost Index (ECI) program. The labor force participation rate, the employment-to-population ratio, and unemployment rates for major demographic groups based on the Current Population ("household") Survey are presented, while measures of employment and average weekly hours by major industry sector are given using nonfarm payroll data. The Employment Cost Index (compensation), by major sector and by bargaining status, is chosen from a variety of BLS compensation and wage measures because it provides a comprehensive measure of employer costs for hiring labor, not just outlays for wages, and it is not affected by employment shifts among occupations and industries.

Data on **changes in compensation, prices, and productivity** are presented in table 2.

Measures of rates of change of compensation and wages from the Employment Cost Index program are provided for all civilian nonfarm workers (excluding Federal and household workers) and for all private nonfarm workers. Measures of changes in consumer prices for all urban consumers; producer prices by stage of processing; overall prices by stage of processing; and overall export and import price indexes are given. Measures of productivity (output per hour of all persons) are provided for major sectors.

Alternative measures of wage and compensation rates of change, which reflect the overall trend in labor costs, are summarized in table 3. Differences in concepts and scope, related to the specific purposes of the series, contribute to the variation in changes among the individual measures.

Notes on the data

Definitions of each series and notes on the data are contained in later sections of these notes describing each set of data.

Employment and Unemployment Data

(Tables 1; 4–20)

Household survey data

Description of the series

EMPLOYMENT DATA in this section are obtained from the Current Population Survey, a program of personal interviews conducted monthly by the Bureau of the Census for the Bureau of Labor Statistics. The sample consists of about 50,000 households selected to represent the U.S. population 16 years of age and older. Households are interviewed on a rotating basis, so that three-fourths of the sample is the same for any 2 consecutive months.

Definitions

Employed persons include (1) all those who worked for pay any time during the week which includes the 12th day of the month or who worked unpaid for 15 hours or more in a family-operated enterprise and (2) those who were temporarily absent from their regular jobs because of illness, vacation, industrial dispute, or similar reasons. A person working at more than one job is counted only in the job at which he or she worked the greatest number of hours.

Unemployed persons are those who did not work during the survey week, but were available for work except for temporary illness and had looked for jobs within the preceding 4 weeks. Persons who did not look for work because they were on layoff are also counted among the unemployed. **The unemployment rate** represents the number unemployed as a percent of the civilian labor force.

The **civilian labor force** consists of all employed or unemployed persons in the civilian noninstitutional population. Persons **not in the labor force** are those not classified as employed or unemployed. This group includes discouraged workers, defined as persons who want and are available for a job and who have looked for work sometime in the past 12 months (or since the end of their last job if they held one within the past 12 months), but are not currently looking, because they believe there are no jobs available or there are none for which they would qualify. The **civilian noninstitutional population** comprises all persons 16 years of age and older who are not inmates of penal or mental institutions, sanitariums, or homes for the aged, infirm, or needy. The **civilian labor force participation** rate is the proportion of the civilian noninstitutional population that is in the labor force. The **employment-population ratio** is employment as a percent of the civilian noninstitutional population.

Notes on the data

From time to time, and especially after a decennial census, adjustments are made in the Current Population Survey figures to correct for estimating errors during the intercensal years. These adjustments affect the comparability of historical data. A description of these adjustments and their effect on the various data series appears in the Explanatory Notes of *Employment and Earnings*.

Data beginning in 2000 are not strictly comparable with data for 1999 and earlier years because of the introduction of revised population controls. Additional information appears in the February 2000 issue of *Employment and Earnings*.

Labor force data in tables 1 and 4–9 are seasonally adjusted. Since January 1980, national labor force data have been seasonally adjusted with a procedure called X-11 ARIMA which was developed at Statistics Canada as an extension of the standard X-11 method previously used by BLS. A detailed description of the procedure appears in the X-11 *ARIMA Seasonal Adjustment Method*, by Estela Bee Dagum (Statistics Canada, Catalogue No. 12-564E, January 1983).

At the beginning of each calendar year, historical seasonally adjusted data usually are revised, and projected seasonal adjustment factors are calculated for use during the January–June period. The historical seasonally adjusted data usually are revised for only the most recent 5 years. In July, new seasonal adjustment factors, which incorporate the experience through June, are produced for the July–December period, but no revisions are made in the historical data.

FOR ADDITIONAL INFORMATION on national household survey data, contact the Division of Labor Force Statistics: (202) 691–6378.

Establishment survey data

Description of the series

EMPLOYMENT, HOURS, AND EARNINGS DATA in this section are compiled from payroll records reported monthly on a voluntary basis to the Bureau of Labor Statistics and its cooperating State agencies by about 300,000 establishments representing all industries except agriculture. Industries are classified in accordance with the 1987 *Standard Industrial Classification (SIC) Manual*. In most industries, the sampling probabilities are based on the size of the establishment; most large establishments are therefore in the sample. (An establishment is not necessarily a firm; it may be a branch plant, for example, or warehouse.) Self-employed persons and others not on a regular civilian payroll are outside the scope of the survey because they are excluded from establishment records. This largely accounts for the difference in employment figures between the household and establishment surveys.

Definitions

An **establishment** is an economic unit which produces goods or services (such as a factory or store) at a single location and is engaged in one type of economic activity.

Employed persons are all persons who received pay (including holiday and sick pay) for any part of the payroll period including the 12th day of the month. Persons holding more than one job (about 5 percent of all persons in the labor force) are counted in each establishment which reports them.

Production workers in manufacturing include working supervisors and nonsupervisory workers closely associated with production operations. Those workers mentioned in tables 11–16 include production workers in manufacturing and mining; construction workers in construction; and nonsupervisory workers in the following industries: transportation and public utilities; wholesale and retail trade; finance, insurance, and real estate; and services. These groups account for about four-fifths of the total em-

ployment on private nonagricultural payrolls.

Earnings are the payments production or nonsupervisory workers receive during the survey period, including premium pay for overtime or late-shift work but excluding irregular bonuses and other special payments. **Real earnings** are earnings adjusted to reflect the effects of changes in consumer prices. The deflator for this series is derived from the Consumer Price Index for Urban Wage Earners and Clerical Workers (CPI-W).

Hours represent the average weekly hours of production or nonsupervisory workers for which pay was received, and are different from standard or scheduled hours. **Overtime hours** represent the portion of average weekly hours which was in excess of regular hours and for which overtime premiums were paid.

The **Diffusion Index** represents the percent of industries in which employment was rising over the indicated period, plus one-half of the industries with unchanged employment; 50 percent indicates an equal balance between industries with increasing and decreasing employment. In line with Bureau practice, data for the 1-, 3-, and 6-month spans are seasonally adjusted, while those for the 12-month span are unadjusted. Data are centered within the span. Table 17 provides an index on private nonfarm employment based on 356 industries, and a manufacturing index based on 139 industries. These indexes are useful for measuring the dispersion of economic gains or losses and are also economic indicators.

Notes on the data

Establishment survey data are annually adjusted to comprehensive counts of employment (called "benchmarks"). The latest adjustment, which incorporated March 1999 benchmarks, was made with the release of May 2000 data, published in the July 2000 issue of the *Review*. Coincident with the benchmark adjustment, historical seasonally adjusted data were revised to reflect updated seasonal factors. Unadjusted data from April 1999 forward and seasonally adjusted data from January 1996 forward are subject to revision in future benchmarks.

In addition to the routine benchmark revisions and updated seasonal factors introduced with the release of the May 2000 data, all estimates for the wholesale trade division from April 1998 forward were revised to incorporate a new sample design. This represented the first major industry division to convert to a probability-based sample under a 4-year phase-in plan for the establishment survey sample redesign project. For additional information, see the the June 2000 issue of *Employment and Earnings*.

Revisions in State data (table 11) occurred with the publication of January 2000 data.

Beginning in June 1996, the BLS uses the X-12 ARIMA methodology to seasonally adjust establishment survey data. This procedure, developed by the Bureau of the Census, controls for the effect of varying survey intervals (also known as the 4- versus 5-week effect), thereby providing improved measurement of over-the-month changes and underlying economic trends. Revisions of data, usually for the most recent 5-year period, are made once a year coincident with the benchmark revisions.

In the establishment survey, estimates for the most recent 2 months are based on incomplete returns and are published as preliminary in the tables (12–17 in the *Review*). When all returns have been received, the estimates are revised and published as "final" (prior to any benchmark revisions) in the third month of their appearance. Thus, December data are published as preliminary in January and February and as final in March. For the same reasons, quarterly establishment data (table 1) are preliminary for the first 2 months of publication and final in the third month. Thus, fourth-quarter data are published as preliminary in January and February and as final in March.

FOR ADDITIONAL INFORMATION on establishment survey data, contact the Division of Monthly Industry Employment Statistics: (202) 691–6555.

Unemployment data by State

Description of the series

Data presented in this section are obtained from the Local Area Unemployment Statistics (LAUS) program, which is conducted in cooperation with State employment security agencies.

Monthly estimates of the labor force, employment, and unemployment for States and sub-State areas are a key indicator of local economic conditions, and form the basis for determining the eligibility of an area for benefits under Federal economic assistance programs such as the Job Training Partnership Act. Seasonally adjusted unemployment rates are presented in table 10. Insofar as possible, the concepts and definitions underlying these data are those used in the national estimates obtained from the CPS.

Notes on the data

Data refer to State of residence. Monthly data for all States and the District of Columbia are derived using standardized procedures established by BLS. Once a year, estimates are revised to new population controls, usually with publication of January estimates, and benchmarked to annual average CPS levels.

FOR ADDITIONAL INFORMATION on data in this series, call (202) 691–6392 (table 10) or (202) 691–6559 (table 11).

Compensation and Wage Data

(Tables 1–3; 21–27)

COMPENSATION AND WAGE DATA are gathered by the Bureau from business establishments, State and local governments, labor unions, collective bargaining agreements on file with the Bureau, and secondary sources.

Employment Cost Index

Description of the series

The **Employment Cost Index** (ECI) is a quarterly measure of the rate of change in compensation per hour worked and includes wages, salaries, and employer costs of employee benefits. It uses a fixed market basket of labor—similar in concept to the Consumer Price Index's fixed market basket of goods and services—to measure change over time in employer costs of employing labor.

Statistical series on total compensation costs, on wages and salaries, and on benefit costs are available for private nonfarm workers excluding proprietors, the self-employed, and household workers. The total compensation costs and wages and salaries series are also available for State and local government workers and for the civilian nonfarm economy, which consists of private industry and State and local government workers combined. Federal workers are excluded.

The Employment Cost Index probability sample consists of about 4,400 private nonfarm establishments providing about 23,000 occupational observations and 1,000 State and local government establishments providing 6,000 occupational observations selected to represent total employment in each sector. On average, each reporting unit provides wage and compensation information on five well-specified occupations. Data are collected each quarter for the pay period including the 12th day of March, June, September, and December.

Beginning with June 1986 data, fixed employment weights from the 1980 Census of Population are used each quarter to calculate the civilian and private indexes and the index for State and local governments. (Prior to June 1986, the employment weights are from the 1970 Census of Population.) These fixed weights, also used to derive all of the industry and occupation series indexes, ensure that changes in these indexes reflect only changes in compensation, not employment shifts among indus-

tries or occupations with different levels of wages and compensation. For the bargaining status, region, and metropolitan/non-metropolitan area series, however, employment data by industry and occupation are not available from the census. Instead, the 1980 employment weights are reallocated within these series each quarter based on the current sample. Therefore, these indexes are not strictly comparable to those for the aggregate, industry, and occupation series.

Definitions

Total compensation costs include wages, salaries, and the employer's costs for employee benefits.

Wages and salaries consist of earnings before payroll deductions, including production bonuses, incentive earnings, commissions, and cost-of-living adjustments.

Benefits include the cost to employers for paid leave, supplemental pay (including nonproduction bonuses), insurance, retirement and savings plans, and legally required benefits (such as Social Security, workers' compensation, and unemployment insurance).

Excluded from wages and salaries and employee benefits are such items as payment-in-kind, free room and board, and tips.

Notes on the data

The Employment Cost Index for changes in wages and salaries in the private nonfarm economy was published beginning in 1975. Changes in total compensation cost—wages and salaries and benefits combined—were published beginning in 1980. The series of changes in wages and salaries and for total compensation in the State and local government sector and in the civilian nonfarm economy (excluding Federal employees) were published beginning in 1981. Historical indexes (June 1981=100) are available on the Internet:

http://stats.bls.gov/ecthome.htm

FOR ADDITIONAL INFORMATION on the Employment Cost Index, contact the Office of Compensation Levels and Trends: (202) 691–6199.

Employee Benefits Survey

Description of the series

Employee benefits data are obtained from the Employee Benefits Survey, an annual survey of the incidence and provisions of selected benefits provided by employers. The survey collects data from a sample of approximately 9,000 private sector and State and local government establishments. The data are presented as a percentage of employees who participate in a certain benefit, or as an average benefit provision (for example, the average number of paid holidays provided to employees per year). Selected data from the survey are presented in table 25 for medium and large private establishments and in table 26 for small private establishments and State and local government.

The survey covers paid leave benefits such as holidays and vacations, and personal, funeral, jury duty, military, family, and sick leave; short-term disability, long-term disability, and life insurance; medical, dental, and vision care plans; defined benefit and defined contribution plans; flexible benefits plans; reimbursement accounts; and unpaid family leave.

Also, data are tabulated on the incidence of several other benefits, such as severance pay, child-care assistance, wellness programs, and employee assistance programs.

Definitions

Employer-provided benefits are benefits that are financed either wholly or partly by the employer. They may be sponsored by a union or other third party, as long as there is some employer financing. However, some benefits that are fully paid for by the employee also are included. For example, long-term care insurance and postretirement life insurance paid entirely by the employee are included because the guarantee of insurability and availability at group premium rates are considered a benefit.

Participants are workers who are covered by a benefit, whether or not they use that benefit. If the benefit plan is financed wholly by employers and requires employees to complete a minimum length of service for eligibility, the workers are considered participants whether or not they have met the requirement. If workers are required to contribute towards the cost of a plan, they are considered participants only if they elect the plan and agree to make the required contributions.

Defined benefit pension plans use predetermined formulas to calculate a retirement benefit (if any), and obligate the employer to provide those benefits. Benefits are generally based on salary, years of service, or both.

Defined contribution plans generally specify the level of employer and employee contributions to a plan, but not the formula for determining eventual benefits. Instead, individual accounts are set up for participants, and benefits are based on amounts credited to these accounts.

Tax-deferred savings plans are a type of defined contribution plan that allow participants to contribute a portion of their salary to an employer-sponsored plan and defer income taxes until withdrawal.

Flexible benefit plans allow employees to choose among several benefits, such as life insurance, medical care, and vacation days, and among several levels of coverage within a given benefit.

Notes on the data

Surveys of employees in medium and large establishments conducted over the 1979–86 period included establishments that employed at least 50, 100, or 250 workers, depending on the industry (most service industries were excluded). The survey conducted in 1987 covered only State and local governments with 50 or more employees. The surveys conducted in 1988 and 1989 included medium and large establishments with 100 workers or more in private industries. All surveys conducted over the 1979–89 period excluded establishments in Alaska and Hawaii, as well as part-time employees.

Beginning in 1990, surveys of State and local governments and small private establishments were conducted in even-numbered years, and surveys of medium and large establishments were conducted in odd-numbered years. The small establishment survey includes all private nonfarm establishments with fewer than 100 workers, while the State and local government survey includes all governments, regardless of the number of workers. All three surveys include full- and part-time workers, and workers in all 50 States and the District of Columbia.

FOR ADDITIONAL INFORMATION on the Employee Benefits Survey, contact the Office of Compensation Levels and Trends on the Internet:

http://stats.bls.gov/ebshome.htm

Work stoppages

Description of the series

Data on work stoppages measure the number and duration of major strikes or lockouts (involving 1,000 workers or more) occurring during the month (or year), the number of workers involved, and the amount of work time lost because of stoppage. These data are presented in table 27.

Data are largely from a variety of published sources and cover only establishments directly involved in a stoppage. They do not measure the indirect or secondary effect of stoppages on other establishments whose employees are idle owing to material shortages or lack of service.

Definitions

Number of stoppages: The number of strikes and lockouts involving 1,000 workers or more and lasting a full shift or longer.

Workers involved: The number of workers directly involved in the stoppage.

Number of days idle: The aggregate number of workdays lost by workers involved in the stoppages.

Days of idleness as a percent of estimated working time: Aggregate workdays lost as a percent of the aggregate number of standard workdays in the period multiplied by total employment in the period.

Notes on the data

This series is not comparable with the one terminated in 1981 that covered strikes involving six workers or more.

FOR ADDITIONAL INFORMATION on work stoppages data, contact the Office of Compensation and Working Conditions: (202) 691–6282, or the Internet:

http://stats.bls.gov/cbahome.htm

Price Data

(Tables 2; 28–38)

PRICE DATA are gathered by the Bureau of Labor Statistics from retail and primary markets in the United States. Price indexes are given in relation to a base period—1982 = 100 for many Producer Price Indexes, 1982–84 = 100 for many Consumer Price Indexes (unless otherwise noted), and 1990 = 100 for International Price Indexes.

Consumer Price Indexes

Description of the series

The **Consumer Price Index** (CPI) is a measure of the average change in the prices paid by urban consumers for a fixed market basket of goods and services. The CPI is calculated monthly for two population groups, one consisting only of urban households whose primary source of income is derived from the employment of wage earners and clerical workers, and the other consisting of all urban households. The wage earner index (CPI-W) is a continuation of the historic index that was introduced well over a half-century ago for use in wage negotiations. As new uses were developed for the CPI in recent years, the need for a broader and more representative index became apparent. The all-urban consumer index (CPI-U), introduced in 1978, is representative of the 1993–95 buying habits of about 87 percent of the noninstitutional population of the United States at that time, compared with 32 percent represented in the CPI-W. In addition to wage earners and clerical workers, the CPI-U covers professional, managerial, and technical workers, the self-employed, short-term workers, the unemployed, retirees, and others not in the labor force.

The CPI is based on prices of food, clothing, shelter, fuel, drugs, transportation fares, doctors' and dentists' fees, and other goods and services that people buy for day-to-day living. The quantity and quality of these items are kept essentially unchanged between major revisions so that only price changes will be measured. All taxes directly associated with the purchase and use of items are included in the index.

Data collected from more than 23,000 retail establishments and 5,800 housing units in 87 urban areas across the country are used to develop the "U.S. city average." Separate estimates for 14 major urban centers are presented in table 29. The areas listed are as indicated in footnote 1 to the table. The area indexes measure only the average change in prices for each area since the base period, and do not indicate differences in the level of prices among cities.

Notes on the data

In January 1983, the Bureau changed the way in which homeownership costs are meaured for the CPI-U. A rental equivalence method replaced the asset-price approach to homeownership costs for that series. In January 1985, the same change was made in the CPI-W. The central purpose of the change was to separate shelter costs from the investment component of home-ownership so that the index would reflect only the cost of shelter services provided by owner-occupied homes. An updated CPI-U and CPI-W were introduced with release of the January 1987 and January 1998 data.

FOR ADDITIONAL INFORMATION on consumer prices, contact the Division of Consumer Prices and Price Indexes: (202) 691–7000.

Producer Price Indexes

Description of the series

Producer Price Indexes (PPI) measure average changes in prices received by domestic producers of commodities in all stages of processing. The sample used for calculating these indexes currently contains about 3,200 commodities and about 80,000 quotations per month, selected to represent the movement of prices of all commodities produced in the manufacturing; agriculture, forestry, and fishing; mining; and gas and electricity and public utilities sectors. The stage-of-processing structure of PPI organizes products by class of buyer and degree of fabrication (that is, finished goods, intermediate goods, and crude materials). The traditional commodity structure of PPI organizes products by similarity of end use or material composition. The industry and product structure of PPI organizes data in accordance with the Standard Industrial Classification (SIC) and the product code extension of the SIC developed by the U.S. Bureau of the Census.

To the extent possible, prices used in calculating Producer Price Indexes apply to the first significant commercial transaction in the United States from the production or central marketing point. Price data are generally collected monthly, primarily by mail questionnaire. Most prices are obtained directly from producing companies on a voluntary and confidential basis. Prices generally are reported for the Tuesday of the week containing the 13th day of the month.

Since January 1992, price changes for the various commodities have been averaged together with implicit quantity weights representing their importance in the total net selling value of all commodities as of 1987. The detailed data are aggregated to obtain indexes for stage-of-processing groupings, commodity groupings, durability-of-product groupings, and a number of special composite groups. All Producer Price Index data are subject to revision 4 months after original publication.

FOR ADDITIONAL INFORMATION on producer prices, contact the Division of Industrial Prices and Price Indexes: (202) 691–7705.

International Price Indexes

Description of the series

The **International Price Program** produces monthly and quarterly export and import price indexes for nonmilitary goods traded between the United States and the rest of the world. The export price index provides a measure of price change for all products sold by U.S. residents to foreign buyers. ("Residents" is defined as in the national income accounts; it includes corporations, businesses, and individuals, but does not require the organizations to be U.S. owned nor the individuals to have U.S. citizenship.) The import price index provides a measure of price change for goods purchased from other countries by U.S. residents.

The product universe for both the import and export indexes includes raw materials, agricultural products, semifinished manufactures, and finished manufactures, including both capital and consumer goods. Price data for these items are collected primarily by mail questionnaire. In nearly all cases, the data are collected directly from the exporter or importer, although in a few cases, prices are obtained from other sources.

To the extent possible, the data gathered refer to prices at the U.S. border for exports and at either the foreign border or the U.S.

border for imports. For nearly all products, the prices refer to transactions completed during the first week of the month. Survey respondents are asked to indicate all discounts, allowances, and rebates applicable to the reported prices, so that the price used in the calculation of the indexes is the actual price for which the product was bought or sold.

In addition to general indexes of prices for U.S. exports and imports, indexes are also published for detailed product categories of exports and imports. These categories are defined according to the five-digit level of detail for the Bureau of Economic Analysis End-use Classification (SITC), and the four-digit level of detail for the Harmonized System. Aggregate import indexes by country or region of origin are also available.

BLS publishes indexes for selected categories of internationally traded services, calculated on an international basis and on a balance-of-payments basis.

Notes on the data

The export and import price indexes are weighted indexes of the Laspeyres type. Price relatives are assigned equal importance within each harmonized group and are then aggregated to the higher level. The values assigned to each weight category are based on trade value figures compiled by the Bureau of the Census. The trade weights currently used to compute both indexes relate to 1990.

Because a price index depends on the same items being priced from period to period, it is necessary to recognize when a product's specifications or terms of transaction have been modified. For this reason, the Bureau's questionnaire requests detailed descriptions of the physical and functional characteristics of the products being priced, as well as information on the number of units bought or sold, discounts, credit terms, packaging, class of buyer or seller, and so forth. When there are changes in either the specifications or terms of transaction of a product, the dollar value of each change is deleted from the total price change to obtain the "pure" change. Once this value is determined, a linking procedure is employed which allows for the continued repricing of the item.

For the export price indexes, the preferred pricing is f.a.s. (free alongside ship) U.S. port of exportation. When firms report export prices f.o.b. (free on board), production point information is collected which enables the Bureau to calculate a shipment cost to the port of exportation. An attempt is made to collect two prices for imports. The first is the import price f.o.b. at the foreign port of exportation, which is consistent with the basis for valuation of imports in the national accounts. The second is the import price c.i.f.(costs, insurance, and freight) at the U.S. port of importation, which also includes the other costs associated with bringing the product to the U.S. border. It does not, however, include duty charges. For a given product, only one price basis series is used in the construction of an index.

FOR ADDITIONAL INFORMATION on international prices, contact the Division of International Prices: (202) 691–7155.

Productivity Data

(Tables 2; 39–42)

Business sector and major sectors

Description of the series

The productivity measures relate real output to real input. As such, they encompass a family of measures which include single-factor input measures, such as output per hour, output per unit of labor input, or output per unit of capital input, as well as measures of multifactor productivity (output per unit of combined labor and capital inputs). The Bureau indexes show the change in output relative to changes in the various inputs. The measures cover the business, nonfarm business, manufacturing, and nonfinancial corporate sectors.

Corresponding indexes of hourly compensation, unit labor costs, unit nonlabor payments, and prices are also provided.

Definitions

Output per hour of all persons (labor productivity) is the quantity of goods and services produced per hour of labor input. **Output per unit of capital services** (capital productivity) is the quantity of goods and services produced per unit of capital services input. **Multifactor productivity** is the quantity of goods and services produced per combined inputs. For private business and private nonfarm business, inputs include labor and capital units. For manufacturing, inputs include labor, capital, energy, non-energy materials, and purchased business services.

Compensation per hour is total compensation divided by hours at work. Total compensation equals the wages and salaries of employees plus employers' contributions for social insurance and private benefit plans, plus an estimate of these payments for the self-employed (except for nonfinancial corporations in which there are no self-employed). **Real compensation per hour** is compensation per hour deflated by the change in the Consumer Price Index for All Urban Consumers.

Unit labor costs are the labor compensation costs expended in the production of a unit of output and are derived by dividing compensation by output. **Unit nonlabor payments** include profits, depreciation, interest, and indirect taxes per unit of output. They are computed by subtracting compensation of all persons from current-dollar value of output and dividing by output.

Unit nonlabor costs contain all the components of unit nonlabor payments except unit profits.

Unit profits include corporate profits with inventory valuation and capital consumption adjustments per unit of output.

Hours of all persons are the total hours at work of payroll workers, self-employed persons, and unpaid family workers.

Labor inputs are hours of all persons adjusted for the effects of changes in the education and experience of the labor force.

Capital services are the flow of services from the capital stock used in production. It is developed from measures of the net stock of physical assets—equipment, structures, land, and inventories—weighted by rental prices for each type of asset.

Combined units of labor and capital inputs are derived by combining changes in labor and capital input with weights which represent each component's share of total cost. Combined units of labor, capital, energy, materials, and purchased business services are similarly derived by combining changes in each input with weights that represent each input's share of total costs. The indexes for each input and for combined units are based on changing weights which are averages of the shares in the current and preceding year (the Tornquist index-number formula).

Notes on the data

Business sector output is an annually-weighted index constructed by excluding from real gross domestic product (GDP) the following outputs: general government, nonprofit institutions, paid employees of private households, and the rental value of owner-occupied dwellings. Nonfarm business also excludes farming. Private business and private nonfarm business further exclude government enterprises. The measures are supplied by the U.S. Department of Commerce's Bureau of Economic Analysis. Annual estimates of manufacturing sectoral output are produced by the Bureau of Labor Statistics. Quarterly manufacturing output indexes from the Federal Reserve Board are adjusted to these annual output measures by the BLS. Compensation data are developed from data of the Bureau of Economic Analysis and the Bureau of Labor Statistics. Hours data are developed from data of the Bureau of Labor Statistics.

The productivity and associated cost measures in tables 39–42 describe the relation-

ship between output in real terms and the labor and capital inputs involved in its production. They show the changes from period to period in the amount of goods and services produced per unit of input.

Although these measures relate output to hours and capital services, they do not measure the contributions of labor, capital, or any other specific factor of production. Rather, they reflect the joint effect of many influences, including changes in technology; shifts in the composition of the labor force; capital investment; level of output; changes in the utilization of capacity, energy, material, and research and development; the organization of production; managerial skill; and characteristics and efforts of the work force.

FOR ADDITIONAL INFORMATION on this productivity series, contact the Division of Productivity Research: (202) 691–5606.

Industry productivity measures

Description of the series

The BLS industry productivity data supplement the measures for the business economy and major sectors with annual measures of labor productivity for selected industries at the three- and four-digit levels of the Standard Industrial Classification system. The industry measures differ in methodology and data sources from the productivity measures for the major sectors because the industry measures are developed independently of the National Income and Product Accounts framework used for the major sector measures.

Definitions

Output per hour is derived by dividing an index of industry output by an index of labor input. For most industries, **output** indexes are derived from data on the value of industry output adjusted for price change. For the remaining industries, output indexes are derived from data on the physical quantity of production.

The **labor input** series consist of the hours of all employees (production and nonproduction workers), the hours of all persons (paid employees, partners, proprietors, and unpaid family workers), or the number of employees, depending upon the industry.

Notes on the data

The industry measures are compiled from data produced by the Bureau of Labor Statistics, the Departments of Commerce, Interior, and Agriculture, the Federal Reserve Board, regulatory agencies, trade associations, and other sources.

For most industries, the productivity indexes refer to the output per hour of all employees. For some transportation industries, only indexes of output per employee are prepared. For some trade and service industries, indexes of output per hour of all persons (including self-employed) are constructed.

FOR ADDITIONAL INFORMATION on this series, contact the Division of Industry Productivity Studies: (202) 691–5618.

International Comparisons

(Tables 43–45)

Labor force and unemployment

Description of the series

Tables 43 and 44 present comparative measures of the labor force, employment, and unemployment—approximating U.S. concepts—for the United States, Canada, Australia, Japan, and several European countries. The unemployment statistics (and, to a lesser extent, employment statistics) published by other industrial countries are not, in most cases, comparable to U.S. unemployment statistics. Therefore, the Bureau adjusts the figures for selected countries, where necessary, for all known major definitional differences. Although precise comparability may not be achieved, these adjusted figures provide a better basis for international comparisons than the figures regularly published by each country.

Definitions

For the principal U.S. definitions of the **labor force**, **employment**, and **unemployment**, see the Notes section on Employment and Unemployment Data: Household survey data.

Notes on the data

The adjusted statistics have been adapted to the age at which compulsory schooling ends in each country, rather than to the U.S. standard of 16 years of age and older. Therefore, the adjusted statistics relate to the population aged 16 and older in France, Sweden, and the United Kingdom; 15 and older in Canada, Australia, Japan, Germany, Italy from 1993 onward, and the Netherlands; and 14 and older in Italy prior to 1993. The institutional population is included in the denominator of the labor force participation rates and employment-population ratios for Japan and Germany; it is excluded for the United States and the other countries.

In the U.S. labor force survey, persons on layoff who are awaiting recall to their jobs are classified as unemployed. European and Japanese layoff practices are quite different in nature from those in the United States; therefore, strict application of the U.S. definition has not been made on this point. For further information, see *Monthly Labor Review*, December 1981, pp. 8–11.

The figures for one or more recent years for France, Germany, Italy, the Netherlands, and the United Kingdom are calculated using adjustment factors based on labor force surveys for earlier years and are considered preliminary. The recent-year measures for these countries, therefore, are subject to revision whenever data from more current labor force surveys become available.

There are breaks in the data series for the United States (1990, 1994, 1997, 1998), France (1992), Italy (1991, 1993), the Netherlands (1988), and Sweden (1987).

For the United States, the break in series reflects a major redesign of the labor force survey questionnaire and collection methodology introduced in January 1994. Revised population estimates based on the 1990 census, adjusted for the estimated undercount, also were incorporated. In 1996, previously published data for the 1990–93 period were revised to reflect the 1990 census-based population controls, adjusted for the undercount. In 1997, revised population controls were introduced into the household survey. Therefore, the data are not strictly conparable with prior years. In 1998, new composite estimation procedures and minor revisions in population controls were introduced into the household survey. Therefore, the data are not strictly comparable with data for 1997 and earlier years. See the Notes section on Employment and Unemployment Data of this *Review*.

For France, the 1992 break reflects the substitution of standardized European Union Statistical Office (EUROSTAT) unemployment statistics for the unemployment data estimated according to the International Labor Office (ILO) definition and published in the Organization for Economic Cooperation and Development (OECD) annual yearbook and quarterly update. This change was made because the EUROSTAT data are more up-to-date than the OECD figures. Also, since 1992, the EUROSTAT definitions are closer to the U.S. definitions than they were in prior years. The impact of this revision was to lower the unemployment rate by 0.1 percentage point in 1992 and 1993, by 0.4 percentage point in 1994, and 0.5 percentage point in 1995.

For Italy, the 1991 break reflects a revision in the method of weighting sample data. The impact was to increase the unemployment rate by approximately 0.3 percentage point, from 6.6 to 6.9 percent in 1991.

In October 1992, the survey methodol-

ogy was revised and the definition of unemployment was changed to include only those who were actively looking for a job within the 30 days preceding the survey and who were available for work. In addition, the lower age limit for the labor force was raised from 14 to 15 years. (Prior to these changes, BLS adjusted Italy's published unemployment rate downward by excluding from the unemployed those persons who had not actively sought work in the past 30 days.) The break in the series also reflects the incorporation of the 1991 population census results. The impact of these changes was to raise Italy's adjusted unemployment rate by approximately 1.2 percentage points, from 8.3 to 9.5 percent in fourth-quarter 1992. These changes did not affect employment significantly, except in 1993. Estimates by the Italian Statistical Office indicate that employment declined by about 3 percent in 1993, rather than the nearly 4 percent indicated by the data shown in table 44. This difference is attributable mainly to the incorporation of the 1991 population benchmarks in the 1993 data. Data for earlier years have not been adjusted to incorporate the 1991 census results.

For the Netherlands, a new survey questionnaire was introduced in 1992 that allowed for a closer application of ILO guidelines. EUROSTAT has revised the Dutch series back to 1988 based on the 1992 changes. The 1988 revised unemployment rate is 7.6 percent; the previous estimate for the same year was 9.3 percent.

There have been two breaks in series in the Swedish labor force survey, in 1987 and 1993. Adjustments have been made for the 1993 break back to 1987. In 1987, a new questionnaire was introduced. Questions regarding current availability were added and the period of active workseeking was reduced from 60 days to 4 weeks. These changes lowered Sweden's 1987 unemployment rate by 0.4 percentage point, from 2.3 to 1.9 percent. In 1993, the measurement period for the labor force survey was changed to represent all 52 weeks of the year rather than one week each month and a new adjustment for population totals was introduced. The impact was to raise the unemployment rate by approximately 0.5 percentage point, from 7.6 to 8.1 percent. Statistics Sweden revised its labor force survey data for 1987–92 to take into account the break in 1993. The adjustment raised the Swedish unemployment rate by 0.2 percentage point in 1987 and gradually rose to 0.5 percentage point in 1992.

Beginning with 1987, BLS has adjusted the Swedish data to classify students who also sought work as unemployed. The impact of this change was to increase the adjusted unemployment rate by 0.1 percentage point in 1987 and by 1.8 percentage points in 1994, when unemployment was higher. In 1998, the adjusted unemployment rate had risen from 6.5 to 8.4 percent due to the adjustment to include students.

The net effect of the 1987 and 1993 changes and the BLS adjustment for students seeking work lowered Sweden's 1987 unemployment rate from 2.3 to 2.2 percent.

FOR ADDITIONAL INFORMATION on this series, contact the Division of Foreign Labor Statistics: (202) 691–5654.

Manufacturing productivity and labor costs

Description of the series

Table 45 presents comparative indexes of manufacturing labor productivity (output per hour), output, total hours, compensation per hour, and unit labor costs for the United States, Canada, Japan, and nine European countries. These measures are trend comparisons—that is, series that measure changes over time—rather than level comparisons. There are greater technical problems in comparing the levels of manufacturing output among countries.

BLS constructs the comparative indexes from three basic aggregate measures—output, total labor hours, and total compensation. The hours and compensation measures refer to all employed persons (wage and salary earners plus self-employed persons and unpaid family workers) in the United States, Canada, Japan, France, Germany, Norway, and Sweden, and to all employees (wage and salary earners) in the other countries.

Definitions

Output, in general, refers to value added in manufacturing from the national accounts of each country. However, the output series for Japan prior to 1970 is an index of industrial production, and the national accounts measures for the United Kingdom are essentially identical to their indexes of industrial production.

The 1977–97 output data for the United States are the gross product originating (value added) measures prepared by the Bureau of Economic Analysis of the U.S. Department of Commerce. Comparable manufacturing output data currently are not available prior to 1977.

U.S. gross product originating is a chain-type annual-weighted series. (For more information on the U.S. measure, see Robert E. Yuskavage, "Improved Estimates of Gross Product by Industry, 1959–94," *Survey of Current Business*, August 1996, pp. 133–55.) The Japanese value added series is based upon one set of fixed price weights for the years 1970 through 1997. Output series for the other foreign economies also employ fixed price weights, but the weights are updated periodically (for example, every 5 or 10 years).

To preserve the comparability of the U.S. measures with those for other economies, BLS uses gross product originating in manufacturing for the United States for these comparative measures. The gross product originating series differs from the manufacturing output series that BLS publishes in its news releases on quarterly measures of U.S. productivity and costs (and that underlies the measures that appear in tables 39 and 41 in this section). The quarterly measures are on a "sectoral output" basis, rather than a value-added basis. Sectoral output is gross output less intrasector transactions.

Total labor hours refers to hours worked in all countries. The measures are developed from statistics of manufacturing employment and average hours. The series used for France (from 1970 forward), Norway, and Sweden are official series published with the national accounts. Where official total hours series are not available, the measures are developed by BLS using employment figures published with the national accounts, or other comprehensive employment series, and estimates of annual hours worked. For Germany, BLS uses estimates of average hours worked developed by a research institute connected to the Ministry of Labor for use with the national accounts employment figures. For the other countries, BLS constructs its own estimates of average hours.

Denmark has not published estimates of average hours for 1994–97; therefore, the BLS measure of labor input for Denmark ends in 1993.

Total compensation (labor cost) includes all payments in cash or in-kind made directly to employees plus employer expenditures for legally required insurance programs and contractual and private benefit plans. The measures are from the national accounts of each country, except those for Belgium, which are developed by BLS using statistics on employment, average hours, and hourly compensation. For Canada, France, and Sweden, compensation is increased to account for other significant taxes on payroll or employment. For the United Kingdom, compensation is reduced between 1967 and 1991 to account for employment-related subsidies. Self-employed workers are included in the all-employed-persons measures by assuming that their hourly compensation is equal to the average for wage and salary employees.

Notes on the data

In general, the measures relate to total manufacturing as defined by the International Standard Industrial Classification. However, the measures for France (for all years) and Italy

(beginning 1970) refer to mining and manufacturing less energy-related products, and the measures for Denmark include mining and exclude manufacturing handicrafts from 1960 to 1966.

The measures for recent years may be based on current indicators of manufacturing output (such as industrial production indexes), employment, average hours, and hourly compensation until national accounts and other statistics used for the long-term measures become available.

FOR ADDITIONAL INFORMATION on this series, contact the Division of Foreign Labor Statistics: (202) 691–5654.

Occupational Injury and Illness Data

(Tables 46–47)

Survey of Occupational Injuries and Illnesses

Description of the series

The Survey of Occupational Injuries and Illnesses collects data from employers about their workers' job-related nonfatal injuries and illnesses. The information that employers provide is based on records that they maintain under the Occupational Safety and Health Act of 1970. Self-employed individuals, farms with fewer than 11 employees, employers regulated by other Federal safety and health laws, and Federal, State, and local government agencies are excluded from the survey.

The survey is a Federal-State cooperative program with an independent sample selected for each participating State. A stratified random sample with a Neyman allocation is selected to represent all private industries in the State. The survey is stratified by Standard Industrial Classification and size of employment.

Definitions

Under the Occupational Safety and Health Act, employers maintain records of nonfatal work-related injuries and illnesses that involve one or more of the following: loss of consciousness, restriction of work or motion, transfer to another job, or medical treatment other than first aid.

Occupational injury is any injury such as a cut, fracture, sprain, or amputation that results from a work-related event or a single, instantaneous exposure in the work environment.

Occupational illness is an abnormal condition or disorder, other than one resulting from an occupational injury, caused by exposure to factors associated with employment. It includes acute and chronic illnesses or disease which may be caused by inhalation, absorption, ingestion, or direct contact.

Lost workday injuries and illnesses are cases that involve days away from work, or days of restricted work activity, or both.

Lost workdays include the number of workdays (consecutive or not) on which the employee was either away from work or at work in some restricted capacity, or both, because of an occupational injury or illness. BLS measures of the number and incidence rate of lost workdays were discontinued beginning with the 1993 survey. The number of days away from work or days of restricted work activity does not include the day of injury or onset of illness or any days on which the employee would not have worked, such as a Federal holiday, even though able to work.

Incidence rates are computed as the number of injuries and/or illnesses or lost work days per 100 full-time workers.

Notes on the data

The definitions of occupational injuries and illnesses are from *Recordkeeping Guidelines for Occupational Injuries and Illnesses* (U.S. Department of Labor, Bureau of Labor Statistics, September 1986).

Estimates are made for industries and employment size classes for total recordable cases, lost workday cases, days away from work cases, and nonfatal cases without lost workdays. These data also are shown separately for injuries. Illness data are available for seven categories: occupational skin diseases or disorders, dust diseases of the lungs, respiratory conditions due to toxic agents, poisoning (systemic effects of toxic agents), disorders due to physical agents (other than toxic materials), disorders associated with repeated trauma, and all other occupational illnesses.

The survey continues to measure the number of new work-related illness cases which are recognized, diagnosed, and reported during the year. Some conditions, for example, long-term latent illnesses caused by exposure to carcinogens, often are difficult to relate to the workplace and are not adequately recognized and reported. These long-term latent illnesses are believed to be understated in the survey's illness measure. In contrast, the overwhelming majority of the reported new illnesses are those which are easier to directly relate to workplace activity (for example, contact dermatitis and carpal tunnel syndrome).

Most of the estimates are in the form of incidence rates, defined as the number of injuries and illnesses per 100 equivalent full-time workers. For this purpose, 200,000 employee hours represent 100 employee years (2,000 hours per employee). Full detail on the available measures is presented in the annual bulletin, *Occupational Injuries and Illnesses: Counts, Rates, and Characteristics.*

Comparable data for more than 40 States and territories are available from the BLS Office of Safety, Health and Working Conditions. Many of these States publish data on State and local government employees in addition to private industry data.

Mining and railroad data are furnished to BLS by the Mine Safety and Health Administration and the Federal Railroad Administration. Data from these organizations are included in both the national and State data published annually.

With the 1992 survey, BLS began publishing details on serious, nonfatal incidents resulting in days away from work. Included are some major characteristics of the injured and ill workers, such as occupation, age, gender, race, and length of service, as well as the circumstances of their injuries and illnesses (nature of the disabling condition, part of body affected, event and exposure, and the source directly producing the condition). In general, these data are available nationwide for detailed industries and for individual States at more aggregated industry levels.

FOR ADDITIONAL INFORMATION on occupational injuries and illnesses, contact the Office of Occupational Safety, Health and Working Conditions at (202) 691–6180, or access the Internet at:

http://www.bls.gov/oshhome.htm

Census of Fatal Occupational Injuries

The Census of Fatal Occupational Injuries compiles a complete roster of fatal job-related injuries, including detailed data about the fatally injured workers and the fatal events. The program collects and cross checks fatality information from multiple sources, including death certificates, State and Federal workers' compensation reports, Occupational Safety and Health Administration and Mine Safety and Health Administration records, medical examiner and autopsy reports, media accounts, State motor vehicle fatality records, and follow-up questionnaires to employers.

In addition to private wage and salary workers, the self-employed, family members, and Federal, State, and local government workers are covered by the program. To be included in the fatality census, the decedent must have been employed (that is working for pay, compensation, or profit) at the time of the event, engaged in a legal work activity, or present at the site of the incident as a requirement of his or her job.

Definition

A fatal work injury is any intentional or unintentional wound or damage to the body resulting in death from acute exposure to energy, such as heat or electricity, or kinetic energy from a crash, or from the absence of such essentials as heat or oxygen caused by a specific event or incident or series of events within a single workday or shift. Fatalities that occur during a person's commute to or from work are excluded from the census, as well as work-related illnesses, which can be difficult to identify due to long latency periods.

Notes on the data

Twenty-eight data elements are collected, coded, and tabulated in the fatality program, including information about the fatally injured worker, the fatal incident, and the machinery or equipment involved. Summary worker demographic data and event characteristics are included in a national news release that is available about 8 months after the end of the reference year. The Census of Fatal Occupational Injuries was initiated in 1992 as a joint Federal-State effort. Most States issue summary information at the time of the national news release.

FOR ADDITIONAL INFORMATION on the Census of Fatal Occupational Injuries contact the BLS Office of Safety, Health, and Working Conditions at (202) 691–6175, or the Internet at:

http://www.bls.gov/oshhome.htm

Bureau of Labor Statistics Internet

The Bureau of Labor Statistics World Wide Web site on the Internet contains a range of data on consumer and producer prices, employment and unemployment, occupational compensation, employee benefits, workplace injuries and illnesses, and productivity. The homepage can be accessed using any Web browser:

http://stats.bls.gov

Also, some data can be accessed through anonymous FTP or Gopher at

stats.bls.gov

1. Labor market indicators

Selected indicators	1998	1999	1998			1999				2000	
			II	III	IV	I	II	III	IV	I	II
Employment data											
Employment status of the civilian noninstitutionalized population (household survey):[1]											
Labor force participation rate	67.1	67.1	67.0	67.0	67.1	67.2	67.1	67.0	67.0	67.5	67.3
Employment-population ratio	64.1	64.3	64.1	64.0	64.1	64.3	64.2	64.2	64.3	64.7	64.6
Unemployment rate	4.5	4.2	4.4	4.5	4.4	4.3	4.3	4.2	4.1	4.1	4.0
Men	4.4	4.1	4.3	4.5	4.3	4.2	4.2	4.1	4.0	4.0	3.9
16 to 24 years	11.1	10.3	10.7	11.5	10.6	10.4	10.4	10.0	10.4	9.7	9.7
25 years and over	3.2	3.0	3.1	3.2	3.1	3.0	3.0	3.0	2.9	2.9	2.8
Women	4.6	4.3	4.6	4.5	4.6	4.4	4.4	4.4	4.2	4.2	4.1
16 to 24 years	9.8	9.5	9.7	9.9	9.4	9.8	9.2	9.5	9.4	9.6	9.0
25 years and over	3.6	3.3	3.6	3.5	3.6	3.4	3.4	3.3	3.1	3.2	3.2
Employment, nonfarm (payroll data), in thousands:[1]											
Total	125,865	128,786	125,486	126,180	126,967	127,800	128,430	129,073	129,783	130,626	131,552
Private sector	106,042	108,616	105,726	106,321	107,016	107,741	108,319	108,874	109,507	110,195	110,725
Goods-producing	25,414	25,482	25,427	25,408	25,469	25,488	25,454	25,459	25,524	25,680	25,703
Manufacturing	18,805	18,543	18,871	18,765	18,716	18,632	18,543	18,516	18,482	18,481	18,488
Service-producing	100,451	103,304	100,059	100,772	101,498	102,312	102,976	103,614	104,259	104,946	105,849
Average hours:											
Private sector	34.6	34.5	34.6	34.6	34.6	34.5	34.5	34.5	34.5	34.5	34.5
Manufacturing	41.7	41.7	41.7	41.7	41.7	41.6	41.7	41.8	41.7	41.7	41.7
Overtime	4.6	4.6	4.6	4.6	4.5	4.5	4.6	4.6	4.7	4.6	4.7
Employment Cost Index[2]											
Percent change in the ECI, compensation:											
All workers (excluding farm, household and Federal workers)	3.4	3.4	.8	1.2	.6	.4	1.0	1.1	.9	1.3	1.0
Private industry workers	3.5	3.4	.9	1.1	.6	.4	1.1	.9	.9	1.5	1.2
Goods-producing[3]	2.8	3.4	.8	.7	.5	.8	.7	.9	1.0	1.6	1.2
Service-producing[3]	3.8	3.4	.8	1.3	.6	.3	1.3	.9	.8	1.4	1.2
State and local government workers	3.0	3.4	.3	1.5	.6	.5	.4	1.5	1.0	.6	.3
Workers by bargaining status (private industry):											
Union	3.0	2.7	1.0	1.1	.5	.4	.7	.9	.7	1.3	1.0
Nonunion	3.5	3.6	.8	1.1	.6	.5	1.2	.9	1.0	1.5	1.2

[1] Quarterly data seasonally adjusted.

[2] Annual changes are December-to-December changes. Quarterly changes are calculated using the last month of each quarter.

[3] Goods-producing industries include mining, construction, and manufacturing. Service-producing industries include all other private sector industries.

2. Annual and quarterly percent changes in compensation, prices, and productivity

Selected measures	1998	1999	1998			1999				2000	
			II	III	IV	I	II	III	IV	I	II
Compensation data[1,2]											
Employment Cost Index—compensation (wages, salaries, benefits):											
Civilian nonfarm	3.4	3.4	0.8	1.2	0.6	0.4	1.0	1.1	0.9	1.3	1.0
Private nonfarm	3.5	3.4	.9	1.1	.6	.4	1.1	.9	.9	1.5	1.2
Employment Cost Index—wages and salaries:											
Civilian nonfarm	3.7	3.5	.7	1.3	.7	.5	1.0	1.1	.8	1.1	1.0
Private nonfarm	3.9	3.5	.9	1.3	.6	.5	1.2	.9	.9	1.2	1.0
Price data[1]											
Consumer Price Index (All Urban Consumers): All Items	1.6	2.7	.5	.4	.2	.7	.7	1.0	.2	1.7	.7
Producer Price Index:											
Finished goods	.0	2.9	.5	−.1	.4	.0	1.2	1.5	.1	1.4	1.2
Finished consumer goods	.0	3.8	.8	.0	.2	.0	1.8	2.2	−.2	1.8	1.5
Capital equipment	.0	.3	−.5	−.4	.9	−.1	−.4	−.4	1.2	.1	.0
Intermediate materials, supplies, and components	−3.3	3.7	.2	−.5	−1.6	−.2	1.9	1.9	.1	1.9	1.5
Crude materials	−16.7	15.3	−1.8	−5.6	−2.5	−.1	9.4	10.2	−3.5	9.1	7.8
Productivity data[3]											
Output per hour of all persons:											
Business sector	2.7	3.1	1.1	2.1	3.9	3.3	.9	4.9	7.7	1.6	6.5
Nonfarm business sector	2.6	2.9	1.6	1.8	3.6	2.6	.6	5.2	8.0	1.9	5.7
Nonfinancial corporations[4]	3.6	4.3	4.0	5.2	3.4	4.4	3.8	5.1	6.1	2.9	5.0

[1] Annual changes are December-to-December changes. Quarterly changes are calculated using the last month of each quarter. Compensation and price data are not seasonally adjusted, and the price data are not compounded.

[2] Excludes Federal and private household workers.

[3] Annual rates of change are computed by comparing annual averages. Quarterly percent changes reflect annual rates of change in quarterly indexes. The data are seasonally adjusted.

[4] Output per hour of all employees.

3. Alternative measures of wage and compensation changes

Components	Quarterly average						Four quarters ending—					
	1999				2000		1999				2000	
	I	II	III	IV	I	II	I	II	III	IV	I	II
Average hourly compensation:[1]												
All persons, business sector	5.2	5.0	5.3	3.8	3.5	6.4	5.1	5.0	5.1	4.8	4.4	4.7
All persons, nonfarm business sector	4.5	5.0	5.5	4.2	3.9	5.3	4.9	4.8	4.8	4.8	4.6	4.7
Employment Cost Index—compensation:												
Civilian nonfarm[2]	.4	1.0	1.1	.9	1.3	1.0	3.0	3.2	3.1	3.4	4.3	4.4
Private nonfarm	.4	1.1	.9	.9	1.5	1.2	3.0	3.3	3.1	3.4	4.6	4.6
Union	.4	.7	.9	.7	1.3	1.0	3.0	2.7	2.5	2.7	3.6	3.9
Nonunion	.5	1.2	.9	1.0	1.5	1.2	3.0	3.4	3.2	3.6	4.7	4.6
State and local governments	.5	.4	1.5	1.0	.6	.3	2.9	3.0	2.9	3.4	3.6	3.5
Employment Cost Index—wages and salaries:												
Civilian nonfarm[2]	.5	1.0	1.1	.8	1.1	1.0	3.3	3.6	3.3	3.5	4.0	4.0
Private nonfarm	.5	1.2	.9	.9	1.2	1.0	3.3	3.6	3.2	3.5	4.2	4.1
Union	.4	.8	.7	.6	.5	.9	3.1	3.1	2.5	2.6	2.7	2.8
Nonunion	.5	1.2	.9	.9	1.3	1.1	3.3	3.7	3.3	3.6	4.4	4.3
State and local governments	.4	.4	1.9	.9	.6	.3	2.9	3.1	3.3	3.6	3.8	3.7

[1] Seasonally adjusted. "Quarterly average" is percent change from a quarter ago, at an annual rate.

[2] Excludes Federal and household workers.

4. Employment status of the population, by sex, age, race, and Hispanic origin, monthly data seasonally adjusted

[Numbers in thousands]

Employment status	Annual average		1999					2000							
	1998	1999	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.
TOTAL															
Civilian noninstitutional population[1]	205,220	207,753	208,038	208,265	208,483	208,666	208,832	208,782	208,907	209,053	209,216	209,371	209,543	209,727	209,935
Civilian labor force	137,673	139,368	139,372	139,475	139,697	139,834	140,108	140,910	141,165	140,867	141,230	140,489	140,762	140,399	140,742
Participation rate	67.1	67.1	67.0	67.0	67.0	67.0	67.1	67.5	67.6	67.4	67.5	67.1	67.2	66.9	67.0
Employed	131,463	133,488	133,530	133,650	133,940	134,098	134,420	135,221	135,362	135,159	135,706	134,715	135,179	134,749	134,912
Employment-population ratio[2]	64.1	64.3	64.2	64.2	64.2	64.3	64.4	64.8	64.8	64.7	64.9	64.3	64.5	64.2	64.3
Unemployed	6,210	5,880	5,842	5,825	5,757	5,736	5,688	5,689	5,804	5,708	5,524	5,774	5,583	5,650	5,829
Unemployment rate	4.5	4.2	4.2	4.2	4.1	4.1	4.1	4.0	4.1	4.1	3.9	4.1	4.0	4.0	4.1
Not in the labor force	67,547	68,385	68,666	68,790	68,786	68,832	68,724	67,872	67,742	68,187	67,986	68,882	68,781	69,329	69,193
Men, 20 years and over															
Civilian noninstitutional population[1]	90,790	91,555	91,692	91,793	91,896	91,986	92,052	92,057	92,092	92,145	92,303	92,408	92,546	92,642	92,754
Civilian labor force	69,715	70,194	70,240	70,328	70,339	70,388	70,529	70,917	71,120	70,822	70,761	70,603	70,714	70,702	71,067
Participation rate	76.8	76.7	76.6	76.6	76.5	76.5	76.6	77.0	77.2	76.9	76.7	76.4	76.4	76.3	76.6
Employed	67,135	67,761	67,768	67,943	67,898	68,037	68,197	68,585	68,691	68,480	68,481	68,230	68,430	68,440	68,757
Employment-population ratio[2]	73.9	74.0	73.9	74.0	73.9	74.0	74.1	74.5	74.6	74.3	74.2	73.8	73.9	73.9	74.1
Agriculture	2,350	2,244	2,237	2,189	2,206	2,262	2,227	2,303	2,309	2,232	2,213	2,217	2,269	2,296	2,288
Nonagricultural industries	64,785	65,517	65,531	65,754	65,692	65,775	65,970	66,282	66,382	66,249	66,269	66,013	66,161	66,144	66,469
Unemployed	2,580	2,433	2,472	2,385	2,441	2,351	2,332	2,332	2,429	2,342	2,280	2,373	2,284	2,263	2,309
Unemployment rate	3.7	3.5	3.5	3.4	3.5	3.3	3.3	3.3	3.4	3.3	3.2	3.4	3.2	3.2	3.2
Women, 20 years and over															
Civilian noninstitutional population[1]	98,786	100,158	100,285	100,385	100,458	100,573	100,666	100,579	100,666	100,713	100,809	100,929	101,007	101,111	101,209
Civilian labor force	59,702	60,840	60,904	60,860	60,955	61,052	61,154	61,576	61,575	61,671	61,920	61,614	61,596	61,508	61,260
Participation rate	60.4	60.7	60.7	60.6	60.7	60.7	60.7	61.2	61.2	61.2	61.4	61.0	61.0	60.8	60.5
Employed	57,278	58,555	58,648	58,630	58,800	58,838	58,958	59,280	59,398	59,422	59,757	59,248	59,278	59,222	58,949
Employment-population ratio[2]	58.0	58.5	58.5	58.4	58.5	58.5	58.6	58.9	59.0	59.0	59.3	58.7	58.7	58.6	58.2
Agriculture	768	803	780	778	800	768	791	826	871	894	899	864	834	792	824
Nonagricultural industries	56,510	57,752	57,868	57,852	58,000	58,070	58,167	58,454	58,526	58,528	58,858	58,383	58,444	58,430	58,125
Unemployed	2,424	2,285	2,256	2,230	2,155	2,214	2,196	2,297	2,178	2,249	2,163	2,367	2,318	2,286	2,311
Unemployment rate	4.1	3.8	3.7	3.7	3.5	3.6	3.6	3.7	3.5	3.6	3.5	3.8	3.8	3.7	3.8
Both sexes, 16 to 19 years															
Civilian noninstitutional population[1]	15,644	16,040	16,061	16,086	16,129	16,107	16,114	16,147	16,149	16,196	16,104	16,034	15,991	15,974	15,972
Civilian labor force	8,256	8,333	8,228	8,287	8,403	8,394	8,425	8,416	8,470	8,374	8,549	8,271	8,452	8,189	8,415
Participation rate	52.8	52.0	51.2	51.5	52.1	52.1	52.3	52.1	52.4	51.7	53.1	51.6	52.9	51.3	52.7
Employed	7,051	7,172	7,114	7,077	7,242	7,223	7,265	7,356	7,273	7,257	7,467	7,237	7,471	7,087	7,206
Employment-population ratio[2]	45.1	44.7	44.3	44.0	44.9	44.8	45.1	45.6	45.0	44.8	46.4	45.1	46.7	44.4	45.1
Agriculture	261	234	217	212	232	280	261	242	228	233	243	217	218	211	232
Nonagricultural industries	6,790	6,938	6,897	6,865	7,010	6,943	7,004	7,114	7,046	7,024	7,224	7,020	7,253	6,876	6,974
Unemployed	1,205	1,162	1,114	1,210	1,161	1,171	1,160	1,060	1,197	1,117	1,082	1,034	981	1,101	1,209
Unemployment rate	14.6	13.9	13.5	14.6	13.8	14.0	13.8	12.6	14.1	13.3	12.7	12.5	11.6	13.4	14.4
White															
Civilian noninstitutional population[1]	171,478	173,085	173,275	173,432	173,585	173,709	173,821	173,812	173,886	173,983	174,092	174,197	174,316	174,443	174,587
Civilian labor force	115,415	116,509	116,619	116,495	116,654	116,703	117,008	117,716	117,821	117,832	117,988	117,097	117,451	117,258	117,551
Participation rate	67.3	67.3	67.3	67.2	67.2	67.2	67.3	67.7	67.8	67.7	67.8	67.2	67.4	67.2	67.3
Employed	110,931	112,235	112,308	112,303	112,548	112,611	112,951	113,704	113,634	113,630	113,915	112,988	113,484	113,156	113,352
Employment-population ratio[2]	64.7	64.8	64.8	64.8	64.8	64.8	65.0	65.4	65.3	65.3	65.4	64.9	65.1	64.9	64.9
Unemployed	4,484	4,273	4,311	4,192	4,106	4,092	4,057	4,011	4,187	4,202	4,073	4,108	3,967	4,103	4,199
Unemployment rate	3.9	3.7	3.7	3.6	3.5	3.5	3.5	3.4	3.6	3.6	3.5	3.5	3.4	3.5	3.6
Black															
Civilian noninstitutional population[1]	24,373	24,855	24,904	24,946	24,985	25,019	25,051	25,047	25,076	25,105	25,135	25,161	25,191	25,221	25,258
Civilian labor force	15,982	16,365	16,321	16,474	16,489	16,508	16,513	16,622	16,785	16,572	16,636	16,596	16,557	16,456	16,512
Participation rate	65.6	65.8	65.5	66.0	66.0	66.0	65.9	66.4	66.9	66.0	66.2	66.0	65.8	65.2	65.4
Employed	14,556	15,056	15,047	15,114	15,124	15,187	15,204	15,254	15,471	15,356	15,444	15,261	15,275	15,190	15,190
Employment-population ratio[2]	59.7	60.6	60.4	60.6	60.5	60.7	60.7	60.9	61.7	61.2	61.4	60.7	60.6	60.2	60.1
Unemployed	1,426	1,309	1,274	1,360	1,365	1,321	1,309	1,368	1,314	1,216	1,191	1,335	1,302	1,266	1,322
Unemployment rate	8.9	8.0	7.8	8.3	8.3	8.0	7.9	8.2	7.8	7.3	7.2	8.0	7.9	7.7	8.0

See footnotes at end of table.

4. Continued—Employment status of the population, by sex, age, race, and Hispanic origin, monthly data seasonally adjusted

[Numbers in thousands]

Employment status	Annual average		1999					2000							
	1998	1999	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.
Hispanic origin															
Civilian noninstitutional population[1]	21,070	21,650	21,752	21,820	21,881	21,947	22,008	22,047	22,108	22,166	22,231	22,292	22,355	22,422	22,488
Civilian labor force	14,317	14,665	14,710	14,766	14,809	14,887	14,984	15,251	15,249	15,313	15,355	15,322	15,325	15,188	15,248
Participation rate	67.9	67.7	67.6	67.7	67.7	67.8	68.1	69.2	69.0	69.1	69.1	68.7	68.6	67.7	67.8
Employed	13,291	13,720	13,759	13,795	13,879	13,979	14,095	14,395	14,382	14,355	14,524	14,432	14,461	14,339	14,371
Employment-population ratio[2]	63.1	63.4	63.3	63.2	63.4	63.7	64.0	65.3	65.1	64.8	65.3	64.7	64.7	64.0	63.9
Unemployed	1,026	945	951	971	930	908	889	856	868	958	831	890	864	849	876
Unemployment rate	7.2	6.4	6.5	6.6	6.3	6.1	5.9	5.6	5.7	6.3	5.4	5.8	5.6	5.6	5.7

[1] The population figures are not seasonally adjusted.

[2] Civilian employment as a percent of the civilian noninstitutional population.

NOTE: Detail for the above race and Hispanic-origin groups will not sum to totals because data for the "other races" groups are not presented and Hispanics are included in both the white and black population groups.

Selected employment indicators, monthly data seasonally adjusted

thousands]

Selected categories	Annual average		1999					2000							
	1998	1999	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.
Characteristic															
ployed, 16 years and over	131,463	133,488	133,530	133,650	133,940	134,098	134,420	135,221	135,362	135,159	135,706	134,715	135,179	134,749	134,912
Men	70,693	71,446	71,436	71,630	71,623	71,732	71,927	72,358	72,473	72,313	72,307	71,948	72,217	72,063	72,407
Women	60,771	62,042	62,094	62,020	62,317	62,366	62,493	62,863	62,889	62,846	63,399	62,767	62,962	62,686	62,505
Married men, spouse present	42,923	43,254	43,368	43,367	43,206	43,273	43,283	43,951	43,535	43,297	43,272	43,216	43,357	43,284	43,372
Married women, spouse present	32,872	33,450	33,504	33,275	33,521	33,635	33,762	34,166	33,882	33,780	33,877	33,786	33,824	33,618	33,413
Women who maintain families	7,904	8,229	8,335	8,312	8,398	8,526	8,375	8,362	8,220	8,082	8,307	8,301	8,280	8,483	8,519
Class of worker															
iculture:															
Vage and salary workers	2,000	1,944	1,908	1,930	1,936	2,049	2,018	2,024	2,025	2,043	2,054	2,006	2,059	2,079	2,056
Self-employed workers	1,341	1,297	1,266	1,198	1,267	1,216	1,211	1,320	1,344	1,292	1,272	1,252	1,175	1,182	1,258
Unpaid family workers	38	40	46	40	42	41	36	38	51	42	43	38	50	40	37
nagricultural industries:															
Vage and salary workers	119,019	121,323	121,150	121,583	121,654	121,965	122,426	122,823	123,166	123,169	123,623	122,860	123,002	122,681	122,773
Government	18,383	18,903	19,114	19,080	18,817	18,902	18,959	19,013	19,394	19,598	19,280	19,169	18,777	18,497	18,496
Private industries	100,637	102,420	102,036	102,503	102,837	103,063	103,467	103,810	103,772	103,571	104,343	103,691	104,225	104,184	104,277
Private households	962	933	873	1,035	939	944	948	952	1,016	998	1,019	953	957	807	716
Other	99,674	101,487	101,163	101,468	101,898	102,119	102,519	102,858	102,756	102,573	103,324	102,783	103,268	103,377	103,561
Self-employed workers	8,962	8,790	9,000	8,791	8,833	8,686	8,662	8,802	8,793	8,704	8,750	8,714	8,665	8,609	8,590
Unpaid family workers	103	95	93	100	101	108	98	92	74	107	103	82	71	80	116
rsons at work part time[1]															
ndustries:															
Part time for economic reasons	3,665	3,357	3,279	3,283	3,179	3,274	3,320	3,219	3,139	3,124	3,124	3,248	3,117	3,071	3,164
Slack work or business conditions	2,095	1,968	1,904	1,922	1,928	1,930	1,951	1,893	1,807	1,820	1,844	1,962	1,811	1,846	1,997
Could only find part-time work	1,258	1,079	1,057	1,073	993	1,032	1,025	1,012	1,023	953	1,016	978	1,022	900	855
Part time for noneconomic reasons	18,530	18,758	19,230	18,801	18,799	18,651	18,618	18,889	19,031	18,770	18,474	18,409	18,308	18,558	18,709
nagricultural industries:															
Part time for economic reasons	3,501	3,189	3,127	3,112	2,983	3,105	3,157	3,066	2,985	3,003	3,021	3,096	2,967	2,940	3,038
Slack work or business conditions	1,997	1,861	1,813	1,806	1,807	1,815	1,843	1,801	1,705	1,766	1,782	1,840	1,713	1,750	1,924
Could only find part-time work	1,228	1,056	1,041	1,063	964	1,013	1,018	966	1,005	922	989	962	994	881	838
Part time for noneconomic reasons	17,954	18,197	18,652	18,273	18,249	18,083	18,061	18,347	18,406	18,184	17,943	17,853	17,743	18,041	18,190

Excludes persons "with a job but not at work" during the survey period for such reasons as vacation, illness, or industrial disputes.

6. Selected unemployment indicators, monthly data seasonally adjusted

[Unemployment rates]

Selected categories	Annual average		1999					2000							
	1998	1999	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.
Characteristic															
Total, 16 years and over	4.5	4.2	4.2	4.2	4.1	4.1	4.1	4.0	4.1	4.1	3.9	4.1	4.0	4.0	4.1
Both sexes, 16 to 19 years	14.6	13.9	13.5	14.6	13.8	14.0	13.8	12.6	14.1	13.3	12.7	12.5	11.6	13.4	14.4
Men, 20 years and over	3.7	3.5	3.5	3.4	3.5	3.3	3.3	3.3	3.4	3.3	3.2	3.4	3.2	3.2	3.2
Women, 20 years and over	4.1	3.8	3.7	3.7	3.5	3.6	3.6	3.7	3.5	3.6	3.5	3.8	3.8	3.7	3.8
White, total	3.9	3.7	3.7	3.6	3.5	3.5	3.5	3.4	3.6	3.6	3.5	3.5	3.4	3.5	3.6
Both sexes, 16 to 19 years	12.6	12.0	11.7	12.3	11.8	12.0	12.2	10.8	12.5	11.7	11.6	10.6	9.4	11.5	12.2
Men, 16 to 19 years	14.1	12.6	12.3	12.7	11.9	12.8	13.3	12.4	14.4	11.3	13.0	10.7	11.2	12.6	13.3
Women, 16 to 19 years	10.9	11.3	11.0	11.9	11.7	11.2	10.9	9.1	10.4	12.1	10.0	10.5	7.4	10.3	11.0
Men, 20 years and over	3.2	3.0	3.2	2.9	2.9	2.8	2.8	2.8	2.9	2.9	2.8	2.8	2.8	2.7	2.7
Women, 20 years and over	3.4	3.3	3.2	3.2	3.1	3.1	3.0	3.1	3.1	3.2	3.1	3.3	3.2	3.3	3.3
Black, total	8.9	8.0	7.8	8.3	8.3	8.0	7.9	8.2	7.8	7.3	7.2	8.0	7.9	7.7	8.0
Both sexes, 16 to 19 years	27.6	27.9	28.1	30.8	30.8	28.4	25.3	23.9	24.3	25.1	22.2	23.9	25.4	26.6	27.8
Men, 16 to 19 years	30.1	30.9	29.6	30.3	35.3	31.0	27.5	24.0	22.3	21.3	22.0	27.7	32.0	25.0	33.7
Women, 16 to 19 years	25.3	25.1	26.7	31.4	26.1	25.9	23.0	23.8	26.6	28.9	22.4	20.2	18.2	27.9	22.5
Men, 20 years and over	7.4	6.7	6.3	7.1	7.7	7.0	7.0	7.4	7.1	6.4	6.6	7.2	6.9	6.7	7.4
Women, 20 years and over	7.9	6.8	6.9	6.7	6.1	6.6	6.7	7.2	6.5	6.1	5.8	7.0	6.6	6.4	6.3
Hispanic origin, total	7.2	6.4	6.5	6.6	6.3	6.1	5.9	5.6	5.7	6.3	5.4	5.8	5.6	5.6	5.7
Married men, spouse present	2.4	2.2	2.3	2.2	2.2	2.1	2.2	2.0	2.1	2.0	1.8	1.9	1.9	2.0	2.0
Married women, spouse present	2.9	2.7	2.7	2.6	2.5	2.5	2.5	2.6	2.6	2.7	2.6	2.9	2.6	2.8	2.9
Women who maintain families	7.2	6.4	6.3	6.4	6.0	6.0	6.2	6.2	6.1	6.8	6.3	6.5	6.1	5.6	6.0
Full-time workers	4.3	4.1	4.1	4.0	4.0	3.9	3.9	3.9	3.9	3.8	3.8	3.9	3.8	3.7	4.0
Part-time workers	5.3	5.0	4.6	5.0	4.7	4.9	4.9	4.6	4.9	5.1	4.6	5.3	4.8	5.3	5.0
Industry															
Nonagricultural wage and salary workers	4.6	4.3	4.2	4.3	4.2	4.2	4.1	4.2	4.2	4.3	4.0	4.2	4.0	4.1	4.1
Mining	3.2	5.7	4.2	6.7	5.0	4.6	4.1	2.6	4.0	2.5	2.8	4.2	3.5	5.1	4.6
Construction	7.5	7.0	7.6	6.9	6.7	5.7	6.6	6.4	7.5	6.9	5.2	5.8	5.9	5.9	6.5
Manufacturing	3.9	3.6	3.8	3.9	3.7	3.7	3.6	3.2	3.3	3.9	4.0	3.7	3.4	3.6	3.5
Durable goods	3.4	3.5	3.7	4.0	3.5	3.7	3.6	2.8	3.0	3.0	3.9	3.6	3.5	3.3	3.1
Nondurable goods	4.7	3.9	4.1	3.9	4.0	3.7	3.5	3.9	3.8	5.2	4.1	3.7	3.1	4.0	4.3
Transportation and public utilities	3.4	3.0	3.0	2.8	3.1	3.3	3.0	3.7	3.2	3.1	2.9	3.2	2.7	3.2	3.1
Wholesale and retail trade	5.5	5.2	4.8	5.2	4.9	5.3	5.2	5.1	5.3	5.4	4.9	5.1	5.2	5.0	5.1
Finance, insurance, and real estate	2.5	2.3	2.4	2.3	2.3	2.3	2.1	2.5	2.9	2.4	2.6	2.4	2.3	2.1	2.5
Services	4.5	4.1	4.0	4.1	4.0	3.9	3.8	4.2	3.7	4.0	3.7	4.1	3.8	4.0	3.8
Government workers	2.3	2.2	2.1	2.0	2.1	2.0	2.1	2.1	2.2	1.7	1.7	2.0	2.5	2.1	2.4
Agricultural wage and salary workers	8.3	8.9	9.6	5.7	7.7	8.3	7.1	5.0	6.5	5.6	8.4	7.6	7.3	7.0	8.5
Educational attainment[1]															
Less than a high school diploma	7.1	6.7	7.0	6.8	6.6	6.5	6.0	6.6	6.0	6.9	6.1	7.0	6.4	6.4	6.1
High school graduates, no college	4.0	3.5	3.5	3.5	3.3	3.3	3.5	3.5	3.5	3.4	3.4	3.6	3.4	3.3	3.7
Some college, less than a bachelor's degree	3.0	2.8	3.1	2.7	2.7	2.7	2.5	2.6	2.9	2.7	2.6	2.5	2.9	2.8	2.9
College graduates	1.8	1.8	1.6	1.7	1.7	1.7	1.8	1.8	1.6	1.6	1.5	1.6	1.5	1.7	1.8

[1] Data refer to persons 25 years and over.

7. Duration of unemployment, monthly data seasonally adjusted

[Numbers in thousands]

Weeks of unemployment	Annual average		1999					2000							
	1998	1999	Aug.	Sept.	Oct.	Nov,	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.
Less than 5 weeks	2,622	2,568	2,599	2,582	2,545	2,601	2,620	2,447	2,603	2,824	2,455	2,531	2,595	2,470	2,594
5 to 14 weeks	1,950	1,832	1,798	1,805	1,811	1,760	1,694	1,754	1,864	1,719	1,868	1,953	1,759	1,812	1,846
15 weeks and over	1,637	1,480	1,463	1,412	1,434	1,401	1,388	1,372	1,277	1,295	1,250	1,337	1,242	1,331	1,384
15 to 26 weeks	763	755	747	708	719	725	693	667	673	657	670	677	593	654	679
27 weeks and over	875	725	716	704	715	676	695	705	604	637	580	660	649	677	705
Mean duration, in weeks	14.5	13.4	13.2	13.0	13.2	13.0	12.9	13.2	12.5	12.8	12.4	12.6	12.4	13.3	13.0
Median duration, in weeks	6.7	6.4	6.4	5.9	6.3	6.2	5.9	5.7	6.1	6.0	6.0	5.8	5.8	6.0	6.2

8. Unemployed persons by reason for unemployment, monthly data seasonally adjusted

[Numbers in thousands]

Reason for unemployment	Annual average		1999					2000							
	1998	1999	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.
Job losers[1]	2,822	2,622	2,629	2,573	2,518	2,493	2,401	2,477	2,616	2,541	2,306	2,483	2,450	2,417	2,615
On temporary layoff	866	848	893	869	802	851	795	739	838	781	703	894	959	856	940
Not on temporary layoff	1,957	1,774	1,736	1,704	1,716	1,642	1,606	1,739	1,778	1,759	1,602	1,589	1,491	1,561	1,674
Job leavers	734	783	793	758	778	821	825	776	759	824	883	774	671	799	782
Reentrants	2,132	2,005	1,942	1,967	1,958	1,935	2,036	2,043	1,975	1,979	1,961	2,093	2,076	1,961	1,919
New entrants	520	469	481	504	511	485	453	393	387	434	408	500	343	402	514
Percent of unemployed															
Job losers[1]	45.5	44.6	45.0	44.3	43.7	43.5	42.0	43.5	45.6	44.0	41.9	42.4	44.2	43.3	44.8
On temporary layoff	13.9	14.4	15.3	15.0	13.9	14.8	13.9	13.0	14.6	13.5	12.8	15.3	17.3	15.3	16.1
Not on temporary layoff	31.5	30.2	29.7	29.4	29.8	28.6	28.1	30.6	31.0	30.5	29.1	27.2	26.9	28.0	28.7
Job leavers	11.8	13.3	13.6	13.1	13.5	14.3	14.4	13.6	13.2	14.3	15.1	13.2	12.1	14.3	13.4
Reentrants	34.3	34.1	33.2	33.9	34.0	33.7	35.6	35.9	34.4	34.3	35.6	35.8	37.5	35.1	32.9
New entrants	8.4	8.0	8.2	8.7	8.9	8.5	7.9	6.9	6.7	7.5	7.4	8.5	6.2	7.2	8.8
Percent of civilian labor force															
Job losers[1]	2.1	1.9	1.9	1.8	1.8	1.8	1.7	1.8	1.9	1.8	1.6	1.8	1.7	1.7	1.9
Job leavers	.5	.6	.6	.5	.6	.6	.6	.6	.5	.6	.6	.6	.5	.6	.6
Reentrants	1.5	1.4	1.4	1.4	1.4	1.4	1.5	1.4	1.4	1.4	1.4	1.5	1.5	1.4	1.4
New entrants	.4	.3	.3	.4	.4	.3	.3	.3	.3	.3	.3	.4	.2	.3	.4

[1] Includes persons who completed temporary jobs.

9. Unemployment rates by sex and age, monthly data seasonally adjusted

[Civilian workers]

Sex and age	Annual average		1999					2000							
	1998	1999	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.
Total, 16 years and over	4.5	4.2	4.2	4.2	4.1	4.1	4.1	4.0	4.1	4.1	3.9	4.1	4.0	4.0	4.1
16 to 24 years	10.4	9.9	9.6	10.0	10.0	10.0	9.8	9.3	10.0	9.7	9.3	9.8	9.0	9.2	9.4
16 to 19 years	14.6	13.9	13.5	14.6	13.9	14.0	13.8	12.6	14.1	13.3	12.7	12.5	11.6	13.4	14.4
16 to 17 years	17.2	16.3	15.9	16.1	15.9	16.5	16.5	14.0	15.9	15.3	14.6	16.0	13.1	16.5	17.1
18 to 19 years	12.8	12.4	12.1	13.8	12.4	12.3	12.1	11.4	12.8	12.1	11.4	10.4	10.6	11.5	12.6
20 to 24 years	7.9	7.5	7.3	7.2	7.7	7.7	7.4	7.4	7.5	7.6	7.2	8.2	7.5	6.8	6.4
25 years and over	3.4	3.1	3.2	3.1	3.0	3.0	3.0	3.0	3.0	3.0	2.9	3.0	3.0	3.0	3.1
25 to 54 years	3.5	3.2	3.2	3.2	3.1	3.1	3.0	3.1	3.0	3.0	3.0	3.1	3.1	3.2	3.2
55 years and over	2.7	2.8	2.7	2.6	2.7	2.6	2.7	2.8	3.0	2.7	2.4	2.4	2.3	2.4	2.6
Men, 16 years and over	4.4	4.1	4.1	4.0	4.1	4.0	4.0	3.9	4.1	3.8	3.8	3.9	3.9	3.8	4.0
16 to 24 years	11.1	10.3	9.9	9.9	10.4	10.2	10.6	9.7	10.3	9.2	9.6	10.0	9.5	9.6	10.1
16 to 19 years	16.2	14.7	13.9	14.6	14.2	14.9	15.2	14.0	15.5	12.4	13.6	13.1	14.1	14.0	16.0
16 to 17 years	19.1	17.0	16.2	16.6	15.5	16.9	17.7	14.3	17.3	15.1	15.8	16.9	15.6	17.4	16.9
18 to 19 years	14.1	13.1	12.6	13.2	13.2	13.6	13.5	13.7	13.9	10.5	12.4	10.8	13.3	11.9	15.5
20 to 24 years	8.1	7.7	7.6	7.2	8.2	7.5	7.8	7.2	7.3	7.4	7.3	8.3	6.8	7.1	6.7
25 years and over	3.2	3.0	3.1	3.0	2.9	2.8	2.8	2.8	2.9	2.8	2.7	2.8	2.8	2.8	2.8
25 to 54 years	3.3	3.0	3.1	3.0	3.0	2.9	2.9	2.9	2.9	2.8	2.7	2.8	2.9	2.8	2.9
55 years and over	2.8	2.8	2.9	2.9	2.8	2.6	2.5	2.5	2.8	2.8	2.7	2.6	2.2	2.4	2.7
Women, 16 years and over	4.6	4.3	4.3	4.3	4.2	4.2	4.1	4.2	4.1	4.3	4.0	4.3	4.1	4.3	4.3
16 to 24 years	9.8	9.5	9.3	10.0	9.6	9.8	8.9	8.9	9.6	10.2	8.9	9.5	8.5	8.9	8.6
16 to 19 years	12.9	13.2	13.2	14.7	13.4	13.0	12.2	11.1	12.6	14.4	11.6	11.8	8.9	12.8	12.6
16 to 17 years	15.1	15.5	15.6	15.6	16.3	16.1	15.1	13.7	14.3	15.4	13.3	15.0	10.4	15.5	17.3
18 to 19 years	11.5	11.6	11.6	14.5	11.4	10.8	10.5	8.9	11.6	13.7	10.4	9.9	7.8	11.0	9.4
20 to 24 years	7.8	7.2	7.0	7.2	7.2	7.9	7.0	7.6	7.8	7.7	7.2	8.2	8.2	6.5	6.2
25 years and over	3.6	3.3	3.3	3.2	3.1	3.1	3.2	3.2	3.0	3.2	3.0	3.3	3.2	3.3	3.5
25 to 54 years	3.8	3.4	3.4	3.4	3.2	3.3	3.2	3.3	3.0	3.3	3.2	3.5	3.4	3.5	3.6
55 years and over	2.6	2.8	2.4	2.1	2.5	2.6	2.9	3.1	3.3	2.7	2.0	2.3	2.4	2.3	2.6

10. Unemployment rates by State, seasonally adjusted

State	July 1999	June 2000	July 2000[P]	State	July 1999	June 2000	July 2000[P]
Alabama	4.8	3.8	4.1	Missouri	3.5	2.6	2.4
Alaska	6.5	6.1	5.5	Montana	5.1	4.8	5.1
Arizona	4.6	3.8	3.6	Nebraska	2.9	2.9	2.8
Arkansas	4.4	4.0	4.1	Nevada	4.7	3.5	3.5
California	5.1	5.3	5.0	New Hampshire	2.6	2.8	3.1
Colorado	2.8	2.3	2.7	New Jersey	4.7	3.4	3.7
Connecticut	3.1	2.3	2.4	New Mexico	5.5	5.5	5.4
Delaware	3.5	3.5	3.8	New York	5.2	4.5	4.2
District of Columbia	5.9	4.4	5.0	North Carolina	3.1	3.4	3.2
Florida	3.7	3.9	3.7	North Dakota	3.6	2.6	2.6
Georgia	4.0	3.6	3.3	Ohio	4.4	4.2	4.1
Hawaii	5.5	4.0	4.0	Oklahoma	3.2	3.0	3.0
Idaho	5.3	4.4	4.4	Oregon	5.8	4.9	5.0
Illinois	4.4	4.2	4.3	Pennsylvania	4.4	4.1	4.0
Indiana	2.9	3.5	3.6	Rhode Island	4.2	3.9	3.9
Iowa	2.6	2.2	2.1	South Carolina	4.4	3.8	4.0
Kansas	2.8	3.3	3.4	South Dakota	2.9	2.4	2.3
Kentucky	4.5	3.8	3.8	Tennessee	4.1	3.7	3.6
Louisiana	5.0	4.8	4.5	Texas	4.6	4.4	4.1
Maine	4.0	3.4	3.4	Utah	3.8	3.0	3.0
Maryland	3.5	3.3	3.2	Vermont	3.2	2.6	2.7
Massachusetts	3.2	2.6	2.9	Virginia	2.8	2.5	2.5
Michigan	3.7	3.3	3.5	Washington	4.8	4.7	4.8
Minnesota	3.0	2.3	2.5	West Virginia	6.6	5.8	5.4
Mississippi	5.0	6.1	5.6	Wisconsin	2.9	3.7	3.7
				Wyoming	4.9	3.8	4.0

[P] = preliminary

11. Employment of workers on nonfarm payrolls by State, seasonally adjusted

[In thousands]

State	July 1999	June 2000	July 2000[P]	State	July 1999	June 2000	July 2000[P]
Alabama	1,927.8	1,944.3	1,950.7	Missouri	2,727.8	2,754.7	2,737.5
Alaska	278.0	282.7	282.9	Montana	383.2	390.9	391.0
Arizona	2,170.3	2,251.0	2,265.5	Nebraska	897.8	894.0	883.4
Arkansas	1,140.4	1,172.4	1,171.0	Nevada	988.8	1,025.0	1,030.4
California	14,001.8	14,403.9	14,450.9	New Hampshire	606.8	611.8	611.7
Colorado	2,146.7	2,198.6	2,203.5	New Jersey	3,869.8	3,932.9	3,921.8
Connecticut	1,675.2	1,696.4	1,696.2	New Mexico	730.6	743.9	742.1
Delaware	409.5	425.2	425.3	New York	8,464.1	8,614.6	8,614.5
District of Columbia	615.3	619.5	616.4	North Carolina	3,885.5	3,910.9	3,937.5
Florida	6,885.3	7,165.3	7,181.2	North Dakota	323.6	323.8	323.8
Georgia	3,899.8	3,995.5	4,001.1	Ohio	5,558.4	5,581.7	5,590.5
Hawaii	534.9	544.6	545.5	Oklahoma	1,460.5	1,488.5	1,492.0
Idaho	540.2	559.7	561.4	Oregon	1,580.1	1,593.6	1,600.1
Illinois	5,972.5	6,012.0	6,016.8	Pennsylvania	5,584.5	5,607.0	5,608.1
Indiana	2,980.7	3,002.6	2,993.3	Rhode Island	465.6	471.7	473.9
Iowa	1,467.3	1,493.1	1,489.9	South Carolina	1,835.1	1,877.4	1,872.9
Kansas	1,326.5	1,349.5	1,351.8	South Dakota	372.2	376.3	377.4
Kentucky	1,793.2	1,839.3	1,835.3	Tennessee	2,679.2	2,722.1	2,724.9
Louisiana	1,896.0	1,908.2	1,911.2	Texas	9,137.0	9,407.0	9,384.4
Maine	586.1	596.8	600.1	Utah	1,051.8	1,071.8	1,072.5
Maryland	2,368.4	2,441.4	2,423.9	Vermont	290.6	295.0	296.2
Massachusetts	3,243.3	3,291.7	3,299.1	Virginia	3,406.4	3,473.7	3,463.7
Michigan	4,541.6	4,578.2	4,585.5	Washington	2,645.9	2,690.9	2,696.6
Minnesota	2,614.4	2,649.4	2,650.3	West Virginia	724.7	730.6	730.3
Mississippi	1,161.2	1,154.7	1,153.4	Wisconsin	2,782.9	2,824.8	2,818.1
				Wyoming	233.8	233.8	238.8

[P] = preliminary

NOTE: Some data in this table may differ from data published elsewhere because of the continual updating of the data base.

12. Employment of workers on nonfarm payrolls by industry, monthly data seasonally adjusted

[In thousands]

Industry	Annual average		1999					2000							
	1998	1999	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July[p]	Aug.[p]
TOTAL	125,865	128,786	129,057	129,265	129,523	129,788	130,038	130,387	130,482	131,009	131,419	131,590	131,647	131,596	131,491
PRIVATE SECTOR	106,042	108,616	108,846	109,042	109,275	109,517	109,730	110,036	110,088	110,462	110,752	110,578	110,845	111,009	111,026
GOODS-PRODUCING	25,414	25,482	25,430	25,460	25,483	25,527	25,561	25,677	25,624	25,738	25,725	25,684	25,700	25,756	25,677
Mining	590	535	526	527	529	527	530	530	533	536	539	539	539	539	539
Metal mining	49	45	44	45	45	45	45	45	45	45	45	44	44	43	43
Oil and gas extraction	339	293	286	287	289	288	291	293	296	300	303	305	306	307	307
Nonmetallic minerals, except fuels	110	112	112	112	112	112	111	111	111	111	111	110	110	110	109
Construction	6,020	6,404	6,401	6,439	6,470	6,516	6,552	6,652	6,618	6,726	6,694	6,666	6,668	6,673	6,673
General building contractors	1,377	1,450	1,447	1,458	1,464	1,470	1,474	1,498	1,491	1,508	1,497	1,497	1,498	1,498	1,503
Heavy construction, except building	840	869	865	866	872	876	882	892	885	905	899	888	877	881	883
Special trades contractors	3,804	4,084	4,089	4,115	4,134	4,170	4,196	4,262	4,242	4,313	4,298	4,281	4,293	4,294	4,287
Manufacturing	18,805	18,543	18,503	18,494	18,484	18,484	18,479	18,495	18,473	18,476	18,492	18,479	18,493	18,544	18,465
Production workers	12,952	12,739	12,706	12,700	12,702	12,702	12,701	12,713	12,697	12,683	12,689	12,682	12,683	12,733	12,660
Durable goods	11,205	11,103	11,097	11,090	11,083	11,085	11,087	11,099	11,088	11,094	11,104	11,106	11,120	11,158	11,115
Production workers	7,666	7,590	7,590	7,580	7,581	7,579	7,579	7,592	7,592	7,580	7,584	7,584	7,593	7,623	7,589
Lumber and wood products	814	828	829	830	831	831	831	830	832	830	830	828	827	823	818
Furniture and fixtures	533	548	551	551	553	553	552	553	553	555	557	558	558	565	557
Stone, clay, and glass products	562	563	563	563	562	564	565	568	567	568	567	566	568	571	567
Primary metal industries	715	700	699	697	697	698	698	699	699	701	699	699	699	698	694
Fabricated metal products	1,509	1,517	1,515	1,518	1,519	1,520	1,521	1,523	1,525	1,528	1,534	1,535	1,540	1,540	1,537
Industrial machinery and equipment	2,206	2,141	2,135	2,133	2,130	2,131	2,132	2,130	2,131	2,124	2,126	2,125	2,130	2,137	2,135
Computer and office equipment	382	370	370	370	369	370	370	369	368	366	364	360	360	361	363
Electronic and other electrical equipment	1,707	1,670	1,669	1,670	1,672	1,670	1,673	1,679	1,684	1,682	1,691	1,693	1,697	1,718	1,719
Electronic components and accessories	660	636	637	636	638	638	640	642	645	646	651	654	661	671	675
Transportation equipment	1,893	1,884	1,887	1,880	1,873	1,870	1,867	1,871	1,855	1,865	1,859	1,863	1,864	1,860	1,844
Motor vehicles and equipment	995	1,019	1,026	1,025	1,022	1,022	1,023	1,027	1,029	1,028	1,026	1,026	1,030	1,026	1,013
Aircraft and parts	525	495	488	483	478	473	470	469	453	467	461	463	460	460	458
Instruments and related products	873	856	854	852	849	850	849	847	844	844	844	845	844	849	848
Miscellaneous manufacturing industries	395	395	395	396	397	398	399	399	398	397	397	394	393	397	396
Nondurable goods	7,600	7,440	7,406	7,404	7,401	7,399	7,392	7,396	7,385	7,382	7,388	7,373	7,373	7,386	7,350
Production workers	5,287	5,149	5,116	5,120	5,121	5,123	5,122	5,121	5,105	5,103	5,105	5,098	5,090	5,110	5,071
Food and kindred products	1,683	1,677	1,667	1,673	1,673	1,675	1,674	1,681	1,672	1,671	1,678	1,675	1,679	1,681	1,676
Tobacco products	41	39	36	38	38	38	38	38	37	35	37	37	37	37	34
Textile mill products	598	560	556	552	550	552	549	548	549	549	548	545	542	543	541
Apparel and other textile products	766	692	681	678	674	672	669	666	665	665	665	660	652	656	646
Paper and allied products	677	668	667	666	665	665	665	664	663	662	662	661	663	662	661
Printing and publishing	1,565	1,553	1,552	1,551	1,551	1,549	1,548	1,549	1,550	1,551	1,554	1,552	1,558	1,560	1,559
Chemicals and allied products	1,043	1,034	1,030	1,031	1,032	1,031	1,030	1,031	1,031	1,031	1,030	1,028	1,028	1,026	1,021
Petroleum and coal products	139	134	132	133	133	132	132	132	132	132	132	132	132	131	132
Rubber and miscellaneous plastics products	1,005	1,006	1,008	1,005	1,008	1,009	1,011	1,011	1,010	1,010	1,007	1,008	1,008	1,014	1,006
Leather and leather products	84	78	77	77	77	76	76	76	76	76	75	75	74	76	74
SERVICE-PRODUCING	100,451	103,304	103,627	103,805	104,040	104,261	104,477	104,710	104,858	105,271	105,694	105,906	105,947	105,840	105,814
Transportation and public utilities	6,611	6,826	6,848	6,866	6,875	6,898	6,911	6,925	6,937	6,953	6,970	6,962	6,985	7,008	6,944
Transportation	4,273	4,409	4,426	4,436	4,441	4,453	4,459	4,470	4,479	4,492	4,509	4,501	4,510	4,537	4,549
Railroad transportation	231	230	227	226	226	226	226	225	225	222	221	219	217	219	219
Local and interurban passenger transit	469	485	488	488	489	490	491	493	494	494	498	498	493	501	499
Trucking and warehousing	1,744	1,805	1,810	1,816	1,818	1,823	1,818	1,827	1,828	1,833	1,839	1,834	1,834	1,847	1,850
Water transportation	181	187	188	189	190	190	192	192	196	197	200	200	202	200	204
Transportation by air	1,181	1,227	1,234	1,238	1,241	1,246	1,253	1,256	1,259	1,268	1,270	1,269	1,279	1,282	1,289
Pipelines, except natural gas	14	13	13	13	13	13	13	13	12	12	12	12	12	13	12
Transportation services	454	463	466	466	464	465	466	464	465	466	469	469	473	475	476
Communications and public utilities	2,338	2,416	2,422	2,430	2,434	2,445	2,452	2,455	2,458	2,461	2,461	2,461	2,475	2,471	2,395
Communications	1,477	1,552	1,558	1,565	1,572	1,581	1,588	1,591	1,598	1,602	1,604	1,606	1,619	1,616	1,539
Electric, gas, and sanitary services	861	865	864	865	862	864	864	864	860	859	857	855	856	855	856
Wholesale trade	6,800	6,924	6,946	6,962	6,973	6,989	7,002	7,005	7,011	7,017	7,055	7,048	7,049	7,048	7,058
Retail trade	22,295	22,788	22,841	22,844	22,863	22,893	22,936	22,973	22,987	23,027	23,197	23,064	23,122	23,196	23,161
Building materials and garden supplies	948	989	992	994	1,004	1,008	1,012	1,016	1,020	1,034	1,032	1,025	1,018	1,017	1,020
General merchandise stores	2,730	2,771	2,768	2,757	2,752	2,752	2,766	2,765	2,762	2,756	2,791	2,744	2,741	2,725	2,725
Department stores	2,415	2,431	2,426	2,414	2,408	2,406	2,416	2,419	2,417	2,409	2,443	2,388	2,386	2,371	2,378

See footnotes at end of table.

12. Continued—Employment of workers on nonfarm payrolls by industry, monthly data seasonally adjusted

[In thousands]

Industry	Annual average		1999					2000							
	1998	1999	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May.	June	July[P]	Aug.[P]
Food stores	3,484	3,495	3,498	3,495	3,496	3,498	3,501	3,501	3,503	3,502	3,522	3,516	3,515	3,518	3,523
Automotive dealers and service stations	2,332	2,369	2,369	2,372	2,377	2,380	2,386	2,399	2,394	2,407	2,410	2,408	2,412	2,413	2,417
New and used car dealers	1,047	1,079	1,084	1,087	1,089	1,092	1,094	1,097	1,100	1,105	1,106	1,107	1,110	1,111	1,114
Apparel and accessory stores	1,141	1,174	1,181	1,183	1,186	1,190	1,182	1,176	1,184	1,188	1,195	1,195	1,197	1,207	1,202
Furniture and home furnishings stores	1,025	1,082	1,090	1,092	1,093	1,091	1,098	1,099	1,102	1,111	1,113	1,113	1,118	1,118	1,121
Eating and drinking places	7,768	7,940	7,958	7,956	7,950	7,966	7,986	7,998	7,992	8,000	8,097	8,028	8,071	8,135	8,094
Miscellaneous retail establishments	2,868	2,969	2,985	2,995	3,005	3,008	3,005	3,019	3,021	3,029	3,037	3,035	3,050	3,063	3,059
Finance, insurance, and real estate	7,389	7,569	7,590	7,589	7,599	7,604	7,613	7,612	7,624	7,621	7,610	7,600	7,588	7,589	7,614
Finance	3,588	3,691	3,704	3,702	3,704	3,707	3,710	3,709	3,717	3,713	3,709	3,703	3,705	3,708	3,719
Depository institutions	2,046	2,061	2,063	2,063	2,063	2,061	2,059	2,058	2,057	2,054	2,052	2,044	2,042	2,037	2,037
Commercial banks	1,472	1,476	1,476	1,476	1,475	1,473	1,471	1,470	1,469	1,466	1,464	1,456	1,454	1,450	1,450
Savings institutions	256	252	251	250	250	250	248	247	245	243	243	243	242	240	240
Nondepository institutions	658	710	716	711	706	704	704	699	699	692	686	684	682	683	685
Security and commodity brokers	647	688	695	697	703	709	713	716	723	728	732	736	741	748	754
Holding and other investment offices	238	231	230	231	232	233	234	236	238	239	239	239	240	240	243
Insurance	2,335	2,371	2,375	2,376	2,378	2,375	2,378	2,372	2,373	2,373	2,365	2,361	2,359	2,356	2,358
Insurance carriers	1,591	1,611	1,611	1,610	1,612	1,608	1,610	1,606	1,606	1,605	1,597	1,594	1,593	1,587	1,589
Insurance agents, brokers, and service	744	761	764	766	766	767	768	766	767	768	768	767	766	769	769
Real estate	1,465	1,507	1,511	1,511	1,517	1,522	1,525	1,531	1,534	1,535	1,536	1,536	1,524	1,525	1,537
Services[1]	37,533	39,027	39,191	39,321	39,482	39,606	39,707	39,844	39,914	40,090	40,195	40,220	40,401	40,412	40,572
Agricultural services	708	766	764	770	774	782	782	806	796	812	801	790	788	794	796
Hotels and other lodging places	1,789	1,848	1,857	1,863	1,863	1,868	1,868	1,866	1,868	1,885	1,902	1,904	1,922	1,930	1,935
Personal services	1,201	1,233	1,237	1,243	1,247	1,252	1,257	1,263	1,265	1,265	1,272	1,262	1,271	1,273	1,282
Business services	8,618	9,267	9,339	9,404	9,465	9,502	9,538	9,571	9,615	9,681	9,735	9,715	9,773	9,770	9,811
Services to buildings	950	985	992	994	997	998	997	997	1,000	1,004	1,001	996	997	1,000	995
Personnel supply services	3,278	3,601	3,626	3,678	3,712	3,734	3,748	3,753	3,773	3,817	3,885	3,855	3,873	3,854	3,876
Help supply services	2,956	3,228	3,251	3,298	3,327	3,343	3,358	3,361	3,382	3,418	3,485	3,440	3,444	3,435	3,446
Computer and data processing services	1,615	1,831	1,857	1,866	1,874	1,880	1,888	1,896	1,906	1,915	1,927	1,929	1,933	1,948	1,956
Auto repair services and parking	1,145	1,184	1,185	1,186	1,191	1,191	1,192	1,194	1,195	1,192	1,195	1,192	1,191	1,194	1,200
Miscellaneous repair services	376	377	376	377	379	379	382	382	384	384	383	383	384	383	383
Motion pictures	576	610	618	619	624	625	624	626	623	630	634	632	635	634	638
Amusement and recreation services	1,594	1,660	1,664	1,672	1,691	1,701	1,703	1,721	1,723	1,729	1,752	1,755	1,789	1,794	1,803
Health services	9,853	9,989	10,008	10,015	10,027	10,041	10,053	10,066	10,078	10,091	10,093	10,104	10,116	10,143	10,157
Offices and clinics of medical doctors	1,806	1,877	1,885	1,888	1,893	1,898	1,903	1,910	1,914	1,920	1,925	1,928	1,928	1,930	1,932
Nursing and personal care facilities	1,772	1,785	1,786	1,785	1,785	1,785	1,787	1,788	1,790	1,791	1,789	1,788	1,786	1,787	1,794
Hospitals	3,930	3,982	3,987	3,989	3,992	3,992	3,997	4,001	4,002	4,004	3,999	4,005	4,008	4,018	4,021
Home health care services	666	636	636	635	636	637	637	638	639	639	641	641	642	645	644
Legal services	971	997	999	1,000	1,003	1,005	1,007	1,008	1,007	1,007	1,004	1,006	1,009	1,012	1,015
Educational services	2,178	2,276	2,292	2,294	2,299	2,305	2,309	2,308	2,309	2,329	2,329	2,356	2,374	2,379	2,379
Social services	2,646	2,800	2,808	2,823	2,845	2,868	2,884	2,905	2,912	2,929	2,940	2,946	2,945	2,916	2,950
Child day care services	621	695	701	701	708	721	729	737	740	749	753	758	760	765	765
Residential care	744	775	780	785	790	795	800	803	807	810	812	816	820	826	828
Museums and botanical and zoological gardens	94	98	98	98	99	99	99	100	100	101	102	101	103	103	103
Membership organizations	2,372	2,425	2,426	2,430	2,431	2,434	2,438	2,439	2,439	2,440	2,439	2,438	2,441	2,431	2,436
Engineering and management services	3,139	3,254	3,276	3,283	3,300	3,310	3,327	3,344	3,354	3,369	3,368	3,390	3,415	3,410	3,438
Engineering and architectural services	908	953	957	956	964	969	974	982	984	985	987	995	1,005	1,007	1,011
Management and public relations	1,000	1,036	1,045	1,044	1,054	1,058	1,068	1,074	1,077	1,085	1,088	1,096	1,110	1,105	1,113
Government	19,823	20,170	20,211	20,223	20,248	20,271	20,308	20,351	20,394	20,547	20,667	21,012	20,802	20,587	20,465
Federal	2,686	2,669	2,655	2,655	2,647	2,646	2,646	2,663	2,700	2,816	2,885	3,238	3,092	2,819	2,674
Federal, except Postal Service	1,819	1,796	1,783	1,785	1,779	1,780	1,780	1,797	1,835	1,951	2,022	2,374	2,230	1,954	1,805
State	4,612	4,695	4,698	4,714	4,722	4,723	4,727	4,725	4,728	4,733	4,744	4,737	4,716	4,734	4,734
Education	1,922	1,968	1,972	1,978	1,979	1,980	1,983	1,981	1,981	1,982	1,990	1,983	1,967	1,982	1,972
Other State government	2,690	2,727	2,726	2,736	2,743	2,743	2,744	2,744	2,747	2,751	2,754	2,754	2,749	2,752	2,762
Local	12,525	12,806	12,858	12,854	12,879	12,902	12,935	12,963	12,966	12,998	13,038	13,037	12,994	13,034	13,057
Education	7,085	7,272	7,305	7,299	7,308	7,323	7,343	7,356	7,355	7,373	7,408	7,395	7,361	7,387	7,381
Other local government	5,440	5,534	5,553	5,555	5,571	5,579	5,592	5,607	5,611	5,625	5,630	5,642	5,633	5,647	5,676

[1] Includes other industries not shown separately.

[P] = preliminary.

NOTE: See "Notes on the data" for a description of the most recent benchmark revision.

13. Average weekly hours of production or nonsupervisory workers on private nonfarm payrolls, by industry, monthly data seasonally adjusted

Industry	Annual average		1999					2000							
	1998	1999	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July[P]	Aug.[P]
PRIVATE SECTOR	34.6	34.5	34.5	34.5	34.5	34.5	34.5	34.5	34.6	34.5	34.6	34.4	34.5	34.4	34.3
GOODS-PRODUCING	41.0	41.0	41.1	41.2	41.1	41.3	41.0	41.1	41.3	41.2	41.5	40.9	40.9	41.1	40.8
MINING	43.9	43.8	44.1	44.3	44.1	44.2	44.3	44.7	44.7	44.7	45.3	44.1	44.7	45.2	44.6
MANUFACTURING	41.7	41.7	41.8	41.8	41.8	41.7	41.7	41.7	41.8	41.7	42.2	41.4	41.6	41.7	41.3
Overtime hours	4.6	4.6	4.6	4.7	4.7	4.7	4.7	4.6	4.7	4.6	4.9	4.5	4.6	4.6	4.5
Durable goods	42.3	42.2	42.3	42.4	42.3	42.2	42.2	42.3	42.3	42.3	42.8	42.0	42.2	42.5	41.9
Overtime hours	4.8	4.8	4.8	4.9	4.8	4.8	4.8	4.8	4.9	4.8	5.1	4.7	4.8	4.7	4.6
Lumber and wood products	41.1	41.2	41.2	41.1	41.1	41.1	41.0	41.1	41.0	40.9	41.2	40.7	40.8	41.1	40.4
Furniture and fixtures	40.5	40.3	40.3	40.4	40.1	39.9	40.2	40.2	40.3	40.2	40.6	40.3	39.9	40.0	39.5
Stone, clay, and glass products	43.5	43.5	43.5	43.5	43.5	43.8	43.5	43.6	43.5	43.4	43.6	43.0	42.9	43.7	43.2
Primary metal industries	44.2	44.2	44.4	44.5	44.3	44.3	44.4	44.5	44.5	44.4	44.9	43.8	43.9	44.2	43.5
Blast furnaces and basic steel products	44.6	44.8	45.0	45.0	45.2	45.3	45.4	45.3	45.4	45.2	45.0	44.7	45.0	45.0	44.2
Fabricated metal products	42.3	42.2	42.3	42.3	42.2	42.1	42.1	42.4	42.4	42.5	43.0	42.3	42.4	42.6	42.0
Industrial machinery and equipment	42.8	42.2	42.3	42.4	42.3	42.2	42.2	42.3	42.3	42.3	42.9	42.2	42.5	42.6	42.1
Electronic and other electrical equipment	41.4	41.4	41.6	41.6	41.6	41.4	41.5	41.6	41.6	41.8	42.2	41.3	41.4	41.9	41.1
Transportation equipment	43.4	43.8	43.9	44.0	43.8	43.6	43.4	43.8	44.0	43.7	44.3	43.2	44.0	43.9	43.5
Motor vehicles and equipment	43.5	45.0	45.1	45.4	45.0	44.7	44.5	45.0	45.0	44.6	45.5	44.2	45.3	44.4	44.7
Instruments and related products	41.3	41.5	41.5	41.5	41.5	41.5	41.5	41.3	41.2	41.2	41.6	41.2	41.3	41.8	41.1
Miscellaneous manufacturing	39.9	39.8	40.0	39.9	39.8	39.7	39.7	39.5	39.5	39.4	39.8	39.3	39.4	39.7	39.4
Nondurable goods	40.9	40.9	41.0	41.0	41.0	41.0	40.9	40.9	41.0	40.9	41.3	40.6	40.7	40.7	40.5
Overtime hours	4.3	4.4	4.4	4.4	4.5	4.5	4.5	4.4	4.5	4.3	4.6	4.3	4.3	4.3	4.2
Food and kindred products	41.7	41.8	41.7	41.7	41.9	41.8	41.7	41.6	41.6	41.6	41.9	41.2	41.5	41.2	41.5
Textile mill products	41.0	40.9	41.0	40.9	41.2	41.3	41.2	41.1	41.7	41.6	41.9	41.1	41.1	41.2	40.4
Apparel and other textile products	37.3	37.5	37.4	37.4	37.5	37.4	37.5	37.6	37.7	37.8	38.0	37.1	37.0	37.3	36.7
Paper and allied products	43.4	43.5	43.6	43.4	43.5	43.4	43.3	43.3	43.5	43.2	43.6	42.8	42.8	42.4	42.4
Printing and publishing	38.3	38.2	38.3	38.3	38.3	38.3	38.3	38.3	38.3	38.2	38.5	38.0	38.2	38.2	38.1
Chemicals and allied products	43.2	43.0	43.2	43.2	43.0	43.0	43.0	42.9	42.7	42.6	42.9	42.7	42.9	43.3	42.8
Rubber and miscellaneous plastics products	41.7	41.7	41.7	41.8	41.5	41.5	41.5	41.6	41.6	41.5	42.1	41.3	41.4	41.3	41.2
Leather and leather products	37.6	37.8	37.9	37.5	37.6	37.7	37.4	37.8	38.1	38.0	38.9	38.2	37.8	37.3	37.8
SERVICE-PRODUCING	32.9	32.8	32.8	32.8	32.9	32.8	32.9	32.9	32.8	32.8	32.8	32.7	32.9	32.7	32.7
TRANSPORTATION AND PUBLIC UTILITIES	39.5	38.7	38.8	38.6	38.4	38.3	38.4	38.4	38.3	38.3	38.7	38.4	38.4	38.8	38.2
WHOLESALE TRADE	38.3	38.3	38.3	38.4	38.6	38.4	38.5	38.6	38.5	38.6	38.6	38.6	38.6	38.5	38.2
RETAIL TRADE	29.0	29.0	29.0	28.8	29.0	29.0	29.1	29.1	29.1	29.0	28.8	28.8	29.0	28.8	28.9

[P] = preliminary.

NOTE: See "Notes on the data" for a description of the most recent benchmark revision.

14. Average hourly earnings of production or nonsupervisory workers on private nonfarm payrolls, by industry, seasonally adjusted

Industry	Annual average		1999					2000							
	1998	1999	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July[P]	Aug.[P]
PRIVATE SECTOR (in current dollars)	$ 12.78	$ 13.24	$13.30	$13.35	$13.38	$13.41	$13.44	$13.49	$13.54	$13.58	$13.64	$13.66	$13.70	$13.76	$13.80
Goods-producing	14.34	14.84	14.91	14.96	14.99	15.03	15.05	15.13	15.20	15.25	15.30	15.29	15.34	15.41	15.46
Mining	16.91	17.09	17.16	17.14	17.09	17.00	17.04	17.09	17.14	17.27	17.26	17.25	17.24	17.24	17.15
Construction	16.61	17.18	17.21	17.26	17.33	17.37	17.44	17.50	17.60	17.67	17.78	17.75	17.77	17.91	17.95
Manufacturing	13.49	13.91	14.01	14.04	14.06	14.07	14.10	14.15	14.21	14.23	14.28	14.27	14.36	14.39	14.44
Excluding overtime	12.79	13.18	13.27	13.29	13.31	13.33	13.36	13.41	13.45	13.47	13.49	13.53	13.60	13.64	13.70
Service-producing	12.27	12.73	12.78	12.83	12.86	12.89	12.93	12.97	13.01	13.05	13.11	13.15	13.19	13.24	13.28
Transportation and public utilities	15.31	15.69	15.73	15.79	15.79	15.84	15.94	15.92	16.00	16.04	16.12	16.22	16.28	16.19	16.28
Wholesale trade	14.07	14.58	14.65	14.70	14.75	14.76	14.83	14.90	14.89	14.98	15.03	15.02	15.16	15.23	15.28
Retail trade	8.74	9.08	9.13	9.16	9.18	9.21	9.25	9.26	9.32	9.35	9.39	9.39	9.43	9.45	9.48
Finance, insurance, and real estate	14.07	14.62	14.65	14.71	14.73	14.76	14.78	14.86	14.87	14.95	14.98	15.01	15.05	15.04	15.11
Services	12.84	13.36	13.42	13.46	13.51	13.53	13.57	13.61	13.66	13.69	13.74	13.79	13.82	13.90	13.96
PRIVATE SECTOR (in constant (1982) dollars)	7.75	7.86	7.87	7.86	7.87	7.87	7.87	7.88	7.87	7.84	7.87	7.88	7.86	7.88	–

– Data not available.

[P] = preliminary.

NOTE: See "Notes on the data" for a description of the most recent benchmark revision.

15. Average hourly earnings of production or nonsupervisory workers on private nonfarm payrolls, by industry

Industry	Annual average		1999					2000							
	1998	1999	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July[p]	Aug.[p]
PRIVATE SECTOR	$12.78	$13.24	$13.20	$13.38	$13.41	$13.43	$13.46	$13.58	$13.58	$13.59	$13.69	$13.64	$13.62	$13.69	$13.68
MINING	16.91	17.09	17.05	17.13	17.05	17.01	17.19	17.30	17.20	17.28	17.29	17.19	17.09	17.14	17.04
CONSTRUCTION	16.61	17.18	17.31	17.46	17.54	17.42	17.47	17.39	17.42	17.54	17.66	17.71	17.74	17.96	18.06
MANUFACTURING	13.49	13.91	13.95	14.11	14.03	14.08	14.20	14.19	14.19	14.22	14.28	14.27	14.34	14.37	14.38
Durable goods	13.98	14.40	14.47	14.62	14.55	14.58	14.73	14.72	14.73	14.76	14.82	14.80	14.90	14.87	14.92
Lumber and wood products	11.10	11.47	11.54	11.56	11.60	11.60	11.64	11.67	11.63	11.62	11.73	11.74	11.82	11.85	11.83
Furniture and fixtures	10.90	11.23	11.28	11.33	11.33	11.36	11.47	11.47	11.51	11.59	11.64	11.69	11.73	11.81	11.81
Stone, clay, and glass products	13.59	13.87	13.94	14.10	14.00	14.04	13.97	13.94	13.96	14.03	14.23	14.28	14.36	14.42	14.40
Primary metal industries	15.48	15.83	15.98	16.18	16.01	16.12	16.17	16.20	16.28	16.34	16.51	16.40	16.52	16.69	16.59
Blast furnaces and basic steel products	18.42	18.81	18.93	18.99	18.90	19.11	19.09	19.16	19.32	19.49	19.72	19.46	19.62	19.82	19.59
Fabricated metal products	13.07	13.48	13.52	13.64	13.52	13.59	13.72	13.71	13.67	13.69	13.75	13.75	13.82	13.81	13.90
Industrial machinery and equipment	14.47	15.02	15.14	15.24	15.18	15.22	15.36	15.39	15.40	15.43	15.42	15.45	15.51	15.61	15.60
Electronic and other electrical equipment	13.10	13.46	13.52	13.64	13.60	13.61	13.73	13.77	13.72	13.70	13.70	13.65	13.72	13.81	13.81
Transportation equipment	17.51	18.04	18.17	18.50	18.41	18.39	18.72	18.57	18.58	18.70	18.82	18.79	19.01	18.65	18.87
Motor vehicles and equipment	17.84	18.41	18.53	18.96	18.85	18.80	19.22	18.99	19.03	19.17	19.36	19.35	19.62	19.07	19.31
Instruments and related products	13.81	14.17	14.28	14.29	14.36	14.34	14.41	14.38	14.41	14.40	14.40	14.44	14.49	14.71	14.71
Miscellaneous manufacturing	10.88	11.30	11.31	11.43	11.45	11.41	11.54	11.52	11.53	11.55	11.58	11.59	11.60	11.66	11.65
Nondurable goods	12.76	13.16	13.17	13.33	13.25	13.31	13.39	13.37	13.36	13.37	13.45	13.43	13.48	13.62	13.57
Food and kindred products	11.80	12.09	12.07	12.18	12.09	12.19	12.28	12.23	12.23	12.27	12.36	12.36	12.39	12.46	12.43
Tobacco products	18.56	19.07	20.86	18.90	17.82	18.02	18.03	17.21	17.48	19.10	19.71	20.40	20.87	21.12	20.78
Textile mill products	10.39	10.71	10.72	10.78	10.73	10.80	10.84	10.84	10.85	10.86	10.94	10.91	10.91	10.96	10.98
Apparel and other textile products	8.52	8.86	8.88	9.01	8.99	8.98	9.04	9.03	9.03	9.05	9.05	9.05	9.07	9.06	9.09
Paper and allied products	15.50	15.94	15.95	16.24	16.09	16.08	16.12	16.02	15.99	16.00	16.15	16.12	16.18	16.27	16.18
Printing and publishing	13.46	13.84	13.83	13.98	13.98	14.02	14.12	14.10	14.13	14.18	14.20	14.15	14.15	14.28	14.30
Chemicals and allied products	17.09	17.38	17.41	17.67	17.61	17.64	17.67	17.70	17.67	17.63	17.77	17.80	17.91	18.32	18.32
Petroleum and coal products	20.91	21.39	21.21	21.55	21.62	21.76	21.76	21.62	22.03	22.24	21.77	21.34	21.19	21.26	21.08
Rubber and miscellaneous plastics products	11.89	12.36	12.37	12.51	12.42	12.46	12.57	12.61	12.57	12.58	12.67	12.65	12.72	12.82	12.77
Leather and leather products	9.35	9.77	9.86	9.95	9.91	9.93	10.01	10.08	9.96	10.01	10.13	10.05	10.08	10.06	10.13
TRANSPORTATION AND PUBLIC UTILITIES	15.31	15.69	15.69	15.80	15.78	15.90	15.96	15.98	16.05	16.02	16.15	16.13	16.17	16.21	16.24
WHOLESALE TRADE	14.07	14.58	14.65	14.68	14.74	17.76	14.85	14.99	14.91	14.83	15.14	14.99	15.04	15.26	15.21
RETAIL TRADE	8.74	9.08	9.05	9.19	9.21	9.22	9.26	9.33	9.35	9.37	9.42	9.39	9.38	9.38	9.39
FINANCE, INSURANCE, AND REAL ESTATE	14.07	14.62	14.62	14.64	14.69	14.74	14.76	14.99	14.93	14.97	15.12	15.02	14.93	15.02	14.98
SERVICES	12.84	13.36	13.23	13.45	13.51	13.57	13.65	13.78	13.77	13.77	13.83	13.76	13.68	13.75	13.72

[p] = preliminary.

NOTE: See "Notes on the data" for a description of the most recent benchmark revision.

16. Average weekly earnings of production or nonsupervisory workers on private nonfarm payrolls, by industry

Industry	Annual average		1999					2000							
	1998	1999	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July[P]	Aug.[P]
PRIVATE SECTOR															
Current dollars	$442.19	$456.78	$463.32	$458.93	$463.99	$463.34	$465.72	$467.15	$464.44	$464.78	$473.67	$467.85	$471.25	$477.78	$474.70
Seasonally adjusted	–	–	458.85	460.58	461.61	462.65	463.68	465.41	468.48	468.51	471.94	469.90	472.65	473.34	473.34
Constant (1982) dollars	268.32	271.25	274.15	269.96	272.45	271.91	273.31	273.51	270.50	268.35	273.32	269.65	270.06	273.49	–
MINING	742.35	748.54	758.73	758.86	758.73	758.65	763.24	766.39	758.52	758.59	776.32	763.24	770.76	774.73	766.80
CONSTRUCTION	646.13	671.74	692.40	673.96	701.60	688.09	677.84	664.04	674.15	680.55	692.27	701.32	702.50	723.79	726.01
MANUFACTURING															
Current dollars	562.53	580.05	583.11	588.39	589.26	594.18	603.50	590.30	588.89	590.13	595.48	590.78	597.98	590.61	595.33
Constant (1982) dollars	341.34	344.45	345.04	346.11	346.01	348.70	354.17	345.61	342.98	340.72	343.61	340.51	342.68	338.07	–
Durable goods	591.35	607.68	612.08	615.50	618.38	622.57	634.86	621.18	620.13	622.87	628.37	623.08	630.27	618.59	625.15
Lumber and wood products	456.21	472.56	482.37	472.80	480.24	480.24	480.73	474.97	469.85	470.61	482.10	480.17	485.80	482.30	483.85
Furniture and fixtures	441.45	452.57	459.10	456.60	458.87	458.94	471.42	459.95	458.10	462.44	464.44	465.26	468.03	466.50	471.22
Stone, clay, and glass products	591.17	603.35	614.75	620.40	616.00	620.57	604.90	591.06	591.90	596.28	614.74	621.18	624.66	631.60	630.72
Primary metal industries	684.22	699.69	704.72	716.77	709.24	720.56	732.50	722.52	722.83	723.86	734.70	721.60	728.53	724.35	718.35
Blast furnaces and basic steel products	821.53	842.69	849.96	852.65	848.61	865.68	878.14	867.95	875.20	875.10	891.34	873.75	882.90	885.95	863.92
Fabricated metal products	552.86	568.86	571.90	571.52	574.60	580.29	594.08	579.93	576.87	577.72	583.00	581.63	587.35	575.88	583.80
Industrial machinery and equipment	619.32	633.84	637.39	635.51	640.60	646.85	663.55	654.08	652.96	654.23	655.35	653.54	659.18	654.06	653.64
Electronic and other electrical equipment	542.34	557.24	562.43	563.33	568.48	572.98	582.15	572.83	569.38	571.29	569.92	561.02	569.38	567.59	567.59
Transportation equipment	759.93	790.15	794.03	812.15	810.04	811.00	838.66	811.51	815.66	819.06	829.96	817.37	836.44	781.44	815.18
Motor vehicles and equipment	776.04	828.45	828.29	860.78	852.02	849.76	887.96	850.75	856.35	860.73	880.88	866.88	888.79	799.03	853.50
Instruments and related products	570.35	588.06	591.19	587.32	594.50	600.85	612.43	595.33	595.13	593.28	594.72	592.04	596.99	606.05	603.11
Miscellaneous manufacturing	434.11	449.74	452.40	453.77	459.15	459.82	466.22	450.43	453.13	456.23	456.25	454.33	458.20	453.57	460.18
Nondurable goods	521.88	538.24	539.97	546.53	547.23	551.03	557.02	544.16	542.42	542.82	548.76	543.92	549.98	548.89	550.94
Food and kindred products	492.06	505.36	506.94	512.62	512.62	518.08	520.67	505.10	500.21	501.84	506.76	506.76	512.95	513.35	518.33
Tobacco products	710.85	762.80	836.49	754.11	753.79	774.86	793.32	672.91	685.22	741.08	782.49	811.92	836.89	834.24	837.43
Textile mill products	425.99	438.04	440.59	438.75	445.30	449.28	453.11	443.36	448.11	450.69	456.20	448.40	451.67	443.88	445.79
Apparel and other textile products	317.80	332.25	333.00	331.57	338.92	337.65	343.52	335.92	339.53	342.09	341.19	336.66	339.22	333.41	334.51
Paper and allied products	672.70	693.39	690.64	709.69	704.74	704.30	712.50	695.27	687.57	686.40	696.07	686.71	692.50	686.59	681.18
Printing and publishing	515.52	528.69	531.07	539.63	539.63	543.98	550.68	534.39	536.94	540.26	542.44	533.46	534.87	541.21	546.26
Chemicals and allied products	738.29	747.34	750.37	765.11	758.99	765.58	772.18	757.56	750.98	749.28	757.00	756.50	768.34	784.10	782.26
Petroleum and coal products	911.68	921.91	903.55	930.96	933.98	935.68	937.86	933.98	956.10	969.66	966.59	919.75	923.88	958.83	923.30
Rubber and miscellaneous plastics products	495.81	515.41	512.12	520.42	516.67	523.32	532.97	523.32	520.40	520.81	528.34	523.71	529.15	520.49	523.57
Leather and leather products	351.56	369.31	381.58	372.13	374.60	378.33	375.75	372.96	375.49	379.38	388.99	384.92	387.07	367.19	390.01
TRANSPORTATION AND PUBLIC UTILITIES	604.75	607.20	618.19	608.30	605.95	608.97	612.86	612.03	611.51	608.76	626.62	616.17	622.55	635.43	628.49
WHOLESALE TRADE	538.88	558.41	565.49	560.78	567.49	566.78	570.24	578.61	568.07	566.51	588.95	575.62	579.04	592.09	581.02
RETAIL TRADE	253.46	263.32	270.60	264.67	266.17	264.61	271.32	265.91	266.48	267.98	272.24	270.43	274.83	279.52	277.94
FINANCE, INSURANCE, AND REAL ESTATE	512.15	529.24	540.94	528.50	530.31	530.64	534.31	551.63	538.97	537.42	554.90	539.22	540.47	551.23	539.28
SERVICES	418.58	435.54	439.24	434.44	441.78	443.74	444.99	450.61	448.90	447.53	453.62	445.82	447.34	453.75	451.39

[P] = preliminary.

NOTE: See "Notes on the data" for a description of the most recent benchmark revision. Dash indicates data not available.

17. Diffusion indexes of employment change, seasonally adjusted

[In percent]

Timespan and year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov	Dec.
	Private nonfarm payrolls, 356 industries											
Over 1-month span:												
1998	63.2	56.6	60.5	58.7	58.3	59.7	53.9	58.1	56.2	53.8	59.0	57.4
1999	54.1	58.8	53.9	59.6	52.8	57.9	58.8	53.8	57.3	60.7	60.8	59.0
2000	60.8	54.1	60.7	56.5	45.9	56.2	57.7	52.1	–	–	–	–
Over 3-month span:												
1998	64.3	66.6	63.2	66.3	63.6	58.0	57.4	57.9	59.7	58.1	58.6	59.4
1999	58.3	57.3	58.4	54.4	57.3	58.8	58.1	60.7	59.6	63.5	64.3	63.1
2000	61.0	62.6	61.9	57.4	56.7	57.0	58.0	–	–	–	–	–
Over 6-month span:												
1998	69.8	67.4	65.2	61.8	62.9	61.4	59.0	58.4	57.4	59.7	59.3	59.1
1999	60.0	58.0	57.6	58.6	54.4	59.7	60.4	62.1	64.0	62.8	65.2	64.6
2000	65.6	60.8	61.0	61.9	59.7	–	–	–	–	–	–	–
Over 12-month span:												
1998	69.7	67.3	67.3	65.9	63.9	62.5	61.5	62.1	61.0	59.8	59.8	58.1
1999	60.3	58.3	57.6	59.4	59.6	60.5	61.9	61.0	62.6	62.9	62.5	63.2
2000	65.0	63.5	–	–	–	–	–	–	–	–	–	–
	Manufacturing payrolls, 139 industries											
Over 1-month span:												
1998	57.9	50.7	53.6	50.7	47.1	50.0	37.8	50.0	45.7	39.9	41.7	43.9
1999	45.0	41.0	42.8	46.4	40.3	46.4	54.7	38.1	46.4	51.8	51.4	50.4
2000	52.2	47.8	51.1	51.1	45.7	51.1	55.4	38.8	–	–	–	–
Over 3-month span:												
1998	56.8	56.8	52.2	52.2	48.6	41.4	39.2	40.3	43.2	37.1	36.7	40.6
1999	36.7	37.1	37.1	34.5	37.8	43.5	39.9	45.0	42.1	50.4	51.1	50.7
2000	47.8	52.5	49.3	48.9	49.6	52.5	47.8	–	–	–	–	–
Over 6-month span:												
1998	60.1	54.3	50.4	39.9	43.5	42.1	38.8	36.7	36.0	39.9	34.5	32.7
1999	35.6	33.5	33.5	37.1	32.7	38.8	41.0	45.7	48.2	43.2	48.6	51.1
2000	51.4	47.5	50.4	52.5	46.8	–	–	–	–	–	–	–
Over 12-month span:												
1998	55.0	51.8	51.8	46.8	40.6	39.9	37.8	38.1	37.1	36.0	34.2	33.5
1999	37.4	32.4	31.7	35.3	36.0	37.1	38.8	39.6	42.4	42.4	42.4	46.0
2000	47.8	45.3	–	–	–	–	–	–	–	–	–	–

– Data not available.

NOTE: Figures are the percent of industries with employment increasing plus one-half of the industries with unchanged employment, where 50 percent indicates an equal balance between industries with increasing and decreasing employment. Data for the 2 most recent months shown in each span are preliminary. See the "Definitions" in this section. See "Notes on the data" for a description of the most recent benchmark revision.

18. Annual data: Employment status of the population

[Numbers in thousands]

Employment status	1991	1992	1993	1994	1995	1996	1997	1998	1999
Civilian noninstitutional population	190,925	192,805	194,838	196,814	198,584	200,591	203,133	205,220	207,753
Civilian labor force	126,346	128,105	129,200	131,056	132,304	133,943	136,297	137,673	139,368
Labor force participation rate	66.2	66.4	66.3	66.6	66.6	66.8	67.1	67.1	67.1
Employed	117,718	118,492	120,259	123,060	124,900	126,708	129,558	131,463	133,488
Employment-population ratio	61.7	61.5	61.7	62.5	62.9	63.2	63.8	64.1	64.3
Agriculture	3,269	3,247	3,115	3,409	3,440	3,443	3,399	3,378	3,281
Nonagricultural industries	114,499	115,245	117,144	119,651	121,460	123,264	126,159	128,085	130,207
Unemployed	8,628	9,613	8,940	7,996	7,404	7,236	6,739	6,210	5,880
Unemployment rate	6.8	7.5	6.9	6.1	5.6	5.4	4.9	4.5	4.2
Not in the labor force	64,578	64,700	65,638	65,758	66,280	66,647	66,837	67,547	68,385

19. Annual data: Employment levels by industry

[In thousands]

Industry	1991	1992	1993	1994	1995	1996	1997	1998	1999
Total employment	108,249	108,601	110,713	114,163	117,191	119,608	122,690	125,865	128,786
Private sector	89,847	89,956	91,872	95,036	97,885	100,189	103,133	106,042	108,616
	23,745	23,231	23,352	23,908	24,265	24,493	24,962	25,414	25,482
Mining	689	635	610	601	581	580	596	590	535
Construction	4,650	4,492	4,668	4,986	5,160	5,418	5,691	6,020	6,404
Manufacturing	18,406	18,104	18,075	18,321	18,524	18,495	18,675	18,805	18,543
Service-producing	84,504	85,370	87,361	90,256	92,925	95,115	97,727	100,451	103,304
	5,755	5,718	5,811	5,984	6,132	6,253	6,408	6,611	6,826
Wholesale trade	6,081	5,997	5,981	6,162	6,378	6,482	6,648	6,800	6,924
Retail trade	19,284	19,356	19,773	20,507	21,187	21,597	21,966	22,295	22,788
	6,646	6,602	6,757	6,896	6,806	6,911	7,109	7,389	7,569
Services	28,336	29,052	30,197	31,579	33,117	34,454	36,040	37,533	39,027
Government	18,402	18,645	18,841	19,128	19,305	19,419	19,557	19,823	20,170
Federal	2,966	2,969	2,915	2,870	2,822	2,757	2,699	2,686	2,669
State	4,355	4,408	4,488	4,576	4,635	4,606	4,582	4,612	4,695
Local	11,081	11,267	11,438	11,682	11,849	12,056	12,276	12,525	12,806

NOTE: See "Notes on the data" for a description of the most recent benchmark revision.

20. Annual data: Average hours and earnings of production or nonsupervisory workers on nonfarm payrolls, by industry

Industry	1991	1992	1993	1994	1995	1996	1997	1998	1999
Private sector:									
Average weekly hours	34.3	34.4	34.5	34.7	34.5	34.4	34.6	34.6	34.5
Average hourly earnings (in dollars)	10.32	10.57	10.83	11.12	11.43	11.82	12.28	12.78	13.24
Average weekly earnings (in dollars)	353.98	363.61	373.64	385.86	394.34	406.61	424.89	442.19	456.78
Mining:									
Average weekly hours	44.4	43.9	44.3	44.8	44.7	45.3	45.4	43.9	43.8
Average hourly earnings (in dollars)	14.19	14.54	14.60	14.88	15.30	15.62	16.15	16.91	17.09
Average weekly earnings (in dollars)	630.04	638.31	646.78	666.62	683.91	707.59	733.21	742.35	748.54
Construction:									
Average weekly hours	38.1	38.0	38.5	38.9	38.9	39.0	39.0	38.9	39.1
Average hourly earnings (in dollars)	14.00	14.15	14.38	14.73	15.09	15.47	16.04	16.61	17.18
Average weekly earnings (in dollars)	533.40	537.70	553.63	573.00	587.00	603.33	625.56	646.13	671.74
Manufacturing:									
Average weekly hours	40.7	41.0	41.4	42.0	41.6	41.6	42.0	41.7	41.7
Average hourly earnings (in dollars)	11.18	11.46	11.74	12.07	12.37	12.77	13.17	13.49	13.91
Average weekly earnings (in dollars)	455.03	469.86	486.04	506.94	514.59	531.23	553.14	562.53	580.05
Transportation and public utilities:									
Average weekly hours	38.1	38.3	39.3	39.7	39.4	39.6	39.7	39.5	38.7
Average hourly earnings (in dollars)	13.20	13.43	13.55	13.78	14.13	14.45	14.92	15.31	15.69
Average weekly earnings (in dollars)	502.92	514.37	532.52	547.07	556.72	572.22	592.32	604.75	607.20
Wholesale trade:									
Average weekly hours	38.1	38.2	38.2	38.4	38.3	38.3	38.4	38.3	38.3
Average hourly earnings (in dollars)	11.15	11.39	11.74	12.06	12.43	12.87	13.45	14.07	14.58
Average weekly earnings (in dollars)	424.82	435.10	448.47	463.10	476.07	492.92	516.48	538.88	558.41
Retail trade:									
Average weekly hours	28.6	28.8	28.8	28.9	28.8	28.8	28.9	29.0	29.0
Average hourly earnings (in dollars)	6.94	7.12	7.29	7.49	7.69	7.99	8.33	8.74	9.08
Average weekly earnings (in dollars)	198.48	205.06	209.95	216.46	221.47	230.11	240.74	253.46	263.32
Finance, insurance, and real estate:									
Average weekly hours	35.7	35.8	35.8	35.8	35.9	35.9	36.1	36.4	36.2
Average hourly earnings (in dollars)	10.39	10.82	11.35	11.83	12.32	12.80	13.34	14.07	14.62
Average weekly earnings (in dollars)	370.92	387.36	406.33	423.51	442.29	459.52	481.57	512.15	529.24
Services:									
Average weekly hours	32.4	32.5	32.5	32.5	32.4	32.4	32.6	32.6	32.6
Average hourly earnings (in dollars)	10.23	10.54	10.78	11.04	11.39	11.79	12.28	12.84	13.36
Average weekly earnings (in dollars)	331.45	342.55	350.35	358.80	369.04	382.00	400.33	418.58	435.54

21. Employment Cost Index, compensation,[1] by occupation and industry group

[June 1989 = 100]

Series	1998			1999				2000		Percent change	
	June	Sept.	Dec.	Mar.	June	Sept.	Dec.	Mar.	June	3 months ended	12 months ended
										June 2000	
Civilian workers[2]	137.4	139.0	139.8	140.4	141.8	143.3	144.6	146.5	148.0	1.0	4.4
Workers, by occupational group:											
White-collar workers	138.7	140.6	141.4	141.9	143.3	145.0	146.3	148.4	149.9	1.0	4.6
Professional specialty and technical	138.3	140.0	141.0	141.3	142.2	143.9	145.3	146.7	148.3	1.1	4.3
Executive, adminitrative, and managerial	139.7	141.7	141.8	143.5	145.4	147.3	148.6	150.5	151.9	.9	4.5
Administrative support, including clerical	139.3	140.4	141.3	142.5	143.4	144.7	146.1	148.6	150.1	1.0	4.7
Blue-collar workers	134.3	135.3	136.1	137.1	138.3	139.5	140.6	142.7	144.1	1.0	4.2
Service occupations	137.9	139.4	140.0	141.3	142.4	143.1	144.8	146.0	147.1	.8	3.3
Workers, by industry division:											
Goods-producing	136.3	137.2	137.9	139.0	140.0	141.2	142.5	144.9	146.6	1.2	4.7
Manufacturing	137.2	138.2	138.9	139.9	140.9	142.1	143.6	146.0	147.5	1.0	4.7
Service-producing	137.7	139.6	140.4	140.9	142.4	144.0	145.3	147.1	148.4	.9	4.2
Services	139.0	140.8	141.7	142.3	143.2	145.1	146.5	148.0	149.3	.9	4.3
Health services	138.5	139.1	139.1	140.5	141.4	142.7	144.3	145.9	147.5	1.1	4.3
Hospitals	138.2	139.4	140.2	141.3	142.2	143.4	145.0	146.3	147.7	1.0	3.9
Educational services	137.7	140.2	141.0	141.3	141.7	144.6	145.8	146.5	146.8	.2	3.6
Public administration[3]	137.4	138.9	139.9	140.8	141.5	142.4	144.4	145.7	146.1	.3	3.3
Nonmanufacturing	137.3	139.0	139.9	140.5	141.9	143.4	144.7	146.6	148.0	1.0	4.3
Private industry workers	137.5	139.0	139.8	140.4	142.0	143.3	144.6	146.8	148.5	1.2	4.6
Excluding sales occupations	137.5	138.8	139.4	140.5	141.9	143.2	144.5	146.5	148.2	1.2	4.4
Workers, by occupational group:											
White-collar workers	139.4	141.1	142.0	142.4	144.1	145.6	146.9	149.3	151.1	1.2	4.9
Excluding sales occupations	139.9	141.3	141.9	143.0	144.5	146.0	147.3	149.4	151.3	1.3	4.7
Professional specialty and technical occupations	140.1	141.6	142.6	142.9	144.1	145.2	146.7	148.4	150.7	1.5	4.6
Executive, adminitrative, and managerial occupations	140.0	141.9	141.8	143.7	145.8	147.7	149.1	151.1	152.7	1.1	4.7
Sales occupations	137.3	140.4	142.6	139.6	142.6	144.1	145.3	148.9	150.3	.9	5.4
Administrative support occupations, including clerical	139.6	140.6	141.4	142.6	143.7	145.0	146.2	149.0	150.6	1.1	4.8
Blue-collar workers	134.3	135.2	135.9	136.9	138.2	139.4	140.5	142.6	144.1	1.1	4.3
Precision production, craft, and repair occupations	134.4	135.4	136.1	137.2	138.4	139.6	140.6	142.3	144.1	1.3	4.1
Machine operators, assemblers, and inspectors	134.7	135.7	136.8	137.3	138.4	139.9	141.4	144.0	145.0	.7	4.8
Transportation and material moving occupations	129.9	130.7	130.7	131.6	133.6	134.4	135.2	137.5	138.6	.8	3.7
Handlers, equipment cleaners, helpers, and laborers	137.6	138.5	139.2	141.0	142.3	143.2	144.4	146.4	148.1	1.2	4.1
Service occupations	136.0	137.3	138.0	139.5	140.6	141.0	142.6	143.9	145.4	1.0	3.4
Production and nonsupervisory occupations[4]	136.6	138.0	139.0	139.3	140.8	141.9	143.1	145.3	146.9	1.1	4.3
Workers, by industry division:											
Goods-producing	136.2	137.1	137.8	138.9	139.9	141.1	142.5	144.8	146.6	1.2	4.8
Excluding sales occupations	135.6	136.5	137.2	138.3	139.3	140.5	141.8	144.2	145.9	1.2	4.7
White-collar occupations	138.8	139.7	140.2	141.7	142.7	143.9	145.5	148.1	150.1	1.4	5.2
Excluding sales occupations	137.4	138.3	138.8	140.4	141.3	142.5	143.9	146.5	148.4	1.3	5.0
Blue-collar occupations	134.6	135.5	136.3	137.1	138.3	139.4	140.7	142.8	144.4	1.1	4.4
Construction	132.7	133.4	134.3	135.6	136.9	137.9	138.7	140.8	143.2	1.7	4.6
Manufacturing	137.2	138.2	138.9	139.9	140.9	142.1	143.6	146.0	147.5	1.0	4.7
White-collar occupations	139.1	140.1	140.5	141.8	143.0	144.3	145.8	148.2	150.2	1.3	5.0
Excluding sales occupations	137.3	138.3	138.7	140.1	141.3	142.5	143.8	146.2	148.2	1.4	4.9
Blue-collar occupations	135.9	136.8	137.7	138.5	139.4	140.5	142.1	144.4	145.6	.8	4.4
Durables	137.4	138.5	139.2	139.9	141.0	142.3	144.0	146.5	148.3	1.2	5.2
Nondurables	136.7	137.6	138.2	139.6	140.4	141.5	142.8	144.9	146.0	.8	4.0
Service-producing	137.8	139.6	140.5	140.9	142.8	144.1	145.3	147.4	149.1	1.2	4.4
Excluding sales occupations	138.5	140.0	140.6	141.7	143.3	144.6	145.9	147.7	149.4	1.2	4.3
White-collar occupations	139.3	141.2	142.2	142.3	144.3	145.8	147.0	149.3	151.0	1.1	4.6
Excluding sales occupations	140.6	142.2	142.8	143.8	145.5	147.0	148.3	150.3	152.1	1.2	4.5
Blue-collar occupations	133.2	134.3	134.8	136.2	137.8	139.1	139.8	141.8	143.1	.9	3.8
Service occupations	135.8	137.0	137.8	139.3	140.5	140.8	142.4	143.6	145.1	1.0	3.3
Transportation and public utilities	137.1	138.5	139.3	139.7	140.9	141.8	142.3	143.9	145.7	1.3	3.4
Transportation	134.9	136.7	137.3	136.8	138.1	138.7	139.5	140.4	141.8	1.0	2.7
Public utilities	139.7	140.7	141.9	143.4	144.6	145.7	146.1	148.6	150.9	1.5	4.4
Communications	139.2	140.5	141.7	143.3	144.9	146.1	146.0	148.4	150.9	1.7	4.1
Electric, gas, and sanitary services	140.3	141.0	142.1	143.4	144.2	145.1	146.1	148.9	151.0	1.4	4.7
Wholesale and retail trade	135.8	137.6	138.2	138.9	141.1	142.2	143.5	145.6	147.3	1.2	4.4
Excluding sales occupations	136.3	138.1	138.8	139.9	141.9	142.8	144.3	146.4	148.1	1.2	4.4
Wholesale trade	138.6	140.8	142.8	142.7	144.6	146.3	148.5	150.0	151.8	1.2	5.0
Excluding sales occupations	138.2	140.0	141.2	142.4	144.0	145.8	147.4	149.6	151.1	1.0	4.9
Retail trade	134.4	135.9	135.6	136.8	139.1	140.0	140.7	143.2	144.8	1.1	4.1
General merchandise stores	133.0	133.2	134.0	135.0	135.6	137.2	138.3	139.7	141.0	.9	4.0
Food stores	132.9	133.7	132.7	134.3	135.7	137.0	138.1	140.1	142.5	1.7	5.0

See footnotes at end of table.

21. Continued—Employment Cost Index, compensation,[1] by occupation and industry group

[June 1989 = 100]

Series	1998			1999				2000		Percent change	
	June	Sept.	Dec.	Mar.	June	Sept.	Dec.	Mar.	June	3 months ended	12 months ended
										June 2000	
Finance, insurance, and real estate	138.4	141.0	142.5	141.5	145.8	147.6	148.3	152.0	153.1	0.7	5.0
Excluding sales occupations	141.3	143.2	143.3	145.6	148.8	151.0	151.6	154.2	155.5	.8	4.5
Banking, savings and loan, and other credit agencies	145.3	148.4	146.7	148.8	155.4	159.3	159.8	162.7	164.2	.9	5.7
Insurance	138.9	141.9	141.7	141.7	144.0	144.5	145.8	149.9	151.3	.9	5.1
Services	140.3	141.8	142.7	143.5	144.6	146.1	147.6	149.4	151.2	1.2	4.6
Business services	140.7	143.5	145.9	147.5	148.7	150.7	151.9	154.2	156.3	1.4	5.1
Health services	138.7	139.0	139.0	140.5	141.4	142.6	144.2	145.8	147.5	1.2	4.3
Hospitals	138.2	139.1	139.9	141.2	142.1	143.0	144.6	145.8	147.5	1.2	3.8
Educational services	143.9	147.0	147.7	148.3	148.7	152.2	153.0	154.0	154.9	.6	4.2
Colleges and universities	144.8	147.8	148.5	149.2	149.6	152.6	153.3	154.6	155.5	.6	3.9
Nonmanufacturing	137.2	138.9	139.7	140.3	142.0	143.4	144.5	146.7	148.4	1.2	4.5
White-collar workers	139.2	141.1	142.0	142.3	144.1	145.6	146.9	149.2	151.0	1.2	4.8
Excluding sales occupations	140.5	142.0	142.7	143.7	145.3	146.8	148.1	150.2	152.0	1.2	4.6
Blue-collar occupations	132.4	133.4	134.0	135.2	136.8	138.0	138.7	140.6	142.3	1.2	4.0
Service occupations	135.7	136.9	137.7	139.2	140.4	140.7	142.3	143.5	145.1	1.1	3.3
State and local government workers	136.9	139.0	139.8	140.5	141.0	143.1	144.6	145.5	145.9	.3	3.5
Workers, by occupational group:											
White-collar workers	136.2	138.4	139.3	139.8	140.2	142.6	144.0	144.9	145.3	.3	3.6
Professional specialty and technical	135.6	137.7	138.5	138.8	139.3	142.0	143.2	144.1	144.5	.3	3.7
Executive, administrative, and managerial	137.9	140.4	141.6	142.6	142.8	144.5	146.1	147.0	147.2	.1	3.1
Administrative support, including clerical	137.2	139.5	140.3	141.4	141.3	143.0	145.0	145.9	146.5	.4	3.7
Blue-collar workers	135.2	136.8	137.8	138.8	139.5	140.9	142.5	143.7	144.2	.3	3.4
Workers, by industry division:											
Services	136.6	139.0	139.7	140.0	140.5	143.2	144.5	145.2	145.5	.2	3.6
Services excluding schools[5]	136.2	138.7	138.8	139.6	140.3	142.6	143.8	145.2	145.8	.4	3.9
Health services	138.0	140.3	140.7	141.2	142.0	144.2	145.8	147.3	147.9	.4	4.2
Hospitals	138.4	140.7	141.2	141.7	142.7	144.8	146.3	147.9	148.4	.3	4.0
Educational services	136.5	138.8	139.6	139.9	140.3	143.1	144.4	145.0	145.2	.1	3.5
Schools	136.7	139.1	139.9	140.2	140.6	143.5	144.7	145.3	145.5	.1	3.5
Elementary and secondary	136.2	138.8	139.3	139.6	140.0	142.9	144.1	144.5	144.7	.1	3.4
Colleges and universities	138.1	140.4	141.5	141.7	142.1	144.8	146.5	147.4	147.6	.1	3.9
Public administration[3]	137.4	138.9	139.9	140.8	141.5	142.4	144.4	145.7	146.1	.3	3.3

[1] Cost (cents per hour worked) measured in the Employment Cost Index consists of wages, salaries, and employer cost of employee benefits.

[2] Consists of private industry workers (excluding farm and household workers) and State and local government (excluding Federal Government) workers.

[3] Consists of legislative, judicial, administrative, and regulatory activities.

[4] This series has the same industry and occupational coverage as the Hourly Earnings index, which was discontinued in January 1989.

[5] Includes, for example, library, social, and health services.

22. Employment Cost Index, wages and salaries, by occupation and industry group

[June 1989 = 100]

Series	1998			1999				2000		Percent change	
	June	Sept.	Dec.	Mar.	June	Sept.	Dec.	Mar.	June	3 months ended	12 months ended
										June 2000	
Civilian workers[1]	135.0	136.8	137.7	138.4	139.8	141.3	142.5	144.0	145.4	1.0	4.0
Workers, by occupational group:											
White-collar workers	136.7	138.8	139.7	140.1	141.6	143.3	144.6	146.2	147.6	1.0	4.2
Professional specialty and technical	136.6	138.5	139.4	140.1	141.0	142.6	144.0	144.9	146.4	1.0	3.8
Executive, adminitrative, and managerial	138.3	140.5	140.3	141.6	143.8	145.9	147.2	148.6	149.9	.9	4.2
Administrative support, including clerical	136.2	137.5	138.6	140.0	140.9	142.3	143.5	145.5	146.9	1.0	4.3
Blue-collar workers	131.4	132.6	133.3	134.5	135.8	137.0	137.9	139.2	140.6	1.0	3.5
Service occupations	134.5	136.1	137.0	138.3	139.4	140.1	141.7	143.0	144.0	.7	3.3
Workers, by industry division:											
Goods-producing	133.3	134.4	135.2	136.3	137.4	138.6	139.7	141.3	143.0	1.2	4.1
Manufacturing	134.6	136.0	136.8	137.9	139.0	140.2	141.5	142.9	144.4	1.0	3.9
Service-producing	135.7	137.8	138.7	139.2	140.7	142.3	143.5	145.0	146.3	.9	4.0
Services	137.6	139.6	140.5	141.5	142.3	144.1	145.5	146.6	147.9	.9	3.9
Health services	136.5	137.6	137.6	138.8	139.7	140.9	142.5	143.8	145.3	1.0	4.0
Hospitals	135.1	136.4	137.1	138.1	138.8	140.1	141.6	142.6	143.8	.8	3.6
Educational services	136.5	139.1	140.0	140.2	140.6	143.7	144.7	145.3	145.6	.2	3.6
Public administration[2]	133.2	134.8	135.9	136.9	137.8	139.5	141.5	142.5	142.9	.3	3.7
Nonmanufacturing	135.1	137.0	137.8	138.4	139.9	141.5	142.6	144.2	145.5	.9	4.0
Private industry workers	134.9	136.6	137.4	138.1	139.7	141.0	142.2	143.9	145.4	1.0	4.1
Excluding sales occupations	134.8	136.3	136.9	138.2	139.6	140.8	142.0	143.5	145.1	1.1	3.9
Workers, by occupational group:											
White-collar workers	137.0	139.0	139.9	140.3	142.1	143.5	144.8	146.6	148.3	1.2	4.4
Excluding sales occupations	137.5	139.1	139.7	141.0	142.5	143.9	145.2	146.7	148.5	1.2	4.2
Professional specialty and technical occupations	137.1	138.7	139.7	140.7	141.8	142.6	144.1	145.1	147.3	1.5	3.9
Executive, adminitrative, and managerial occupations	138.7	140.9	140.5	141.9	144.3	146.4	147.6	149.2	150.7	1.0	4.4
Sales occupations	135.2	138.8	141.3	137.3	140.5	142.1	143.3	146.7	147.9	.8	5.3
Administrative support occupations, including clerical	136.7	137.9	138.9	140.4	141.4	142.7	143.8	146.0	147.5	1.0	4.3
Blue-collar workers	131.3	132.4	133.2	134.3	135.6	136.8	137.7	139.1	140.5	1.0	3.6
Precision production, craft, and repair occupations	131.2	132.3	133.0	134.3	135.6	136.7	137.5	138.9	140.6	1.2	3.7
Machine operators, assemblers, and inspectors	132.7	133.8	134.9	135.7	136.7	138.3	139.5	140.7	141.6	.6	3.6
Transportation and material moving occupations	126.4	127.6	127.8	129.1	131.0	131.9	132.7	134.1	135.2	.8	3.2
Handlers, equipment cleaners, helpers, and laborers	133.7	135.1	135.8	137.3	138.3	139.4	140.4	141.8	143.6	1.3	3.8
Service occupations	133.0	134.4	135.3	136.7	137.8	138.0	139.6	141.0	142.5	1.1	3.4
Production and nonsupervisory occupations[3]	133.6	135.2	136.4	136.8	138.2	139.3	140.4	142.1	143.7	1.1	4.0
Workers, by industry division:											
Goods-producing	133.2	134.3	135.2	136.3	137.3	138.5	139.7	141.3	143.0	1.2	4.2
Excluding sales occupations	132.5	133.6	134.4	135.5	136.6	137.8	138.9	140.5	142.1	1.1	4.0
White-collar occupations	136.3	137.4	138.2	139.4	140.5	141.7	143.0	145.0	146.8	1.2	4.5
Excluding sales occupations	134.6	135.7	136.4	137.8	138.8	140.1	141.3	143.2	144.9	1.2	4.4
Blue-collar occupations	131.3	132.3	133.3	134.3	135.4	136.6	137.6	139.0	140.5	1.1	3.8
Construction	128.1	128.5	129.3	130.7	131.9	133.0	133.6	136.0	138.0	1.5	4.6
Manufacturing	134.6	136.0	136.8	137.9	139.0	140.2	141.5	142.9	144.4	1.0	3.9
White-collar occupations	136.8	138.3	139.0	140.1	141.4	142.7	144.0	145.8	147.7	1.3	4.5
Excluding sales occupations	135.0	136.3	137.1	138.3	139.6	140.8	142.0	143.7	145.6	1.3	4.3
Blue-collar occupations	133.1	134.3	135.3	136.3	137.2	138.4	139.7	140.8	142.0	.9	3.5
Durables	134.5	135.9	136.9	137.9	139.1	140.4	141.8	143.0	144.7	1.2	4.0
Nondurables	134.9	136.0	136.8	138.0	138.7	139.7	140.9	142.7	143.9	.8	3.7
Service-producing	135.6	137.6	138.4	138.9	140.8	142.1	143.3	145.0	146.5	1.0	4.0
Excluding sales occupations	136.2	137.9	138.5	139.8	141.4	142.6	143.8	145.3	146.9	1.1	3.9
White-collar occupations	137.0	139.2	140.1	140.3	142.3	143.8	145.0	146.9	148.5	1.1	4.4
Excluding sales occupations	138.4	140.2	140.7	142.0	143.7	145.1	146.4	147.8	149.6	1.2	4.1
Blue-collar occupations	131.1	132.4	132.9	134.4	135.9	137.0	137.8	139.1	140.3	.9	3.2
Service occupations	133.0	134.2	135.2	136.7	137.8	138.0	139.6	141.1	142.5	1.0	3.4
Transportation and public utilities	132.8	134.3	135.1	135.4	136.8	137.5	137.9	138.5	140.0	1.1	2.3
Transportation	130.4	132.4	132.9	132.3	133.7	134.4	134.9	134.9	136.2	1.0	1.9
Public utilities	135.7	136.5	137.8	139.2	140.6	141.5	141.8	143.2	144.9	1.2	3.1
Communications	135.8	136.7	138.0	139.4	141.1	141.9	142.2	143.4	145.0	1.1	2.8
Electric, gas, and sanitary services	135.6	136.3	137.4	138.9	140.0	140.9	141.3	143.0	144.7	1.2	3.4
Wholesale and retail trade	134.6	136.6	137.0	137.7	139.6	140.7	142.0	143.8	145.5	1.2	4.2
Excluding sales occupations	135.6	137.6	138.2	139.5	141.1	141.8	143.3	145.2	146.8	1.1	4.0
Wholesale trade	137.1	139.3	141.3	140.7	142.3	144.3	146.5	147.4	149.4	1.4	5.0
Excluding sales occupations	137.8	139.6	140.8	141.9	143.0	144.8	146.4	147.9	149.7	1.2	4.7
Retail trade	133.3	135.2	134.8	136.2	138.3	138.9	139.6	142.1	143.5	1.0	3.8
General merchandise stores	131.5	132.2	133.0	133.7	134.3	135.6	136.7	137.8	138.5	.5	3.1
Food stores	130.5	131.7	130.5	131.8	132.8	133.9	134.9	136.7	139.5	2.0	5.0

See footnotes at end of table.

22. Continued—Employment Cost Index, wages and salaries, by occupation and industry group

[June 1989 = 100]

Series	1998			1999				2000		Percent change	
	June	Sept.	Dec.	Mar.	June	Sept.	Dec.	Mar.	June	3 months ended	12 months ended
										June 2000	
Finance, insurance, and real estate	134.8	138.1	139.8	137.2	142.4	144.5	145.2	148.7	149.5	0.5	5.0
Excluding sales occupations	137.5	139.7	139.6	141.0	144.8	147.5	148.0	150.2	151.5	.9	4.6
Banking, savings and loan, and other credit agencies	143.2	147.0	144.4	146.1	154.5	159.2	159.6	162.0	163.3	.8	5.7
Insurance	134.8	138.7	138.5	137.4	139.8	140.2	141.5	145.5	146.6	.8	4.9
Services	138.3	140.0	140.8	142.2	143.2	144.5	146.0	147.4	149.1	1.2	4.1
Business services	139.2	141.8	144.1	145.4	146.3	148.5	149.8	152.0	154.1	1.4	5.3
Health services	136.5	137.5	137.4	138.7	139.6	140.6	142.2	143.5	145.3	1.3	4.1
Hospitals	134.7	135.8	136.5	137.6	138.3	139.3	140.9	141.8	143.3	1.1	3.6
Educational services	139.6	142.8	143.5	143.9	144.2	147.5	148.2	148.9	149.6	.5	3.7
Colleges and universities	139.7	142.8	143.6	144.1	144.4	147.2	147.9	148.9	149.4	.3	3.5
Nonmanufacturing	134.7	136.5	137.4	137.9	139.7	141.0	142.1	143.9	145.5	1.1	4.2
White-collar workers	136.8	138.9	139.8	140.1	142.0	143.5	144.7	146.5	148.2	1.2	4.4
Excluding sales occupations	138.1	139.8	140.3	141.6	143.2	144.6	145.9	147.4	149.1	1.2	4.1
Blue-collar occupations	129.5	130.5	131.1	132.4	134.0	135.1	135.8	137.4	138.9	1.1	3.7
Service occupations	132.9	134.1	135.1	136.5	137.7	137.9	139.5	140.9	142.4	1.1	3.4
State and local government workers	135.4	137.6	138.5	139.0	139.6	142.2	143.5	144.3	144.7	.3	3.7
Workers, by occupational group:											
White-collar workers	135.2	137.6	138.5	138.9	139.3	142.1	143.4	144.1	144.5	.3	3.7
Professional specialty and technical	135.6	137.9	138.7	138.9	139.4	142.5	143.6	144.3	144.7	.3	3.8
Executive, administrative, and managerial	135.6	138.0	139.3	140.1	140.5	142.7	144.3	144.9	145.1	.1	3.3
Administrative support, including clerical	133.3	135.4	136.5	137.4	137.5	139.6	141.7	142.4	143.0	.4	4.0
Blue-collar workers	133.5	135.1	136.0	136.9	137.6	139.4	140.7	141.5	142.1	.4	3.3
Workers, by industry division:											
Services	135.9	138.4	139.2	139.5	139.9	142.9	144.0	144.6	144.9	.2	3.6
Services excluding schools[4]	135.5	137.8	138.2	139.0	139.6	142.1	143.2	144.3	144.8	.3	3.7
Health services	136.5	138.7	139.2	139.7	140.4	142.8	144.2	145.3	145.7	.3	3.8
Hospitals	136.5	138.6	139.1	139.7	140.6	142.8	144.1	145.3	145.6	.2	3.6
Educational services	135.8	138.4	139.3	139.5	139.8	142.9	144.0	144.5	144.8	.2	3.6
Schools	136.0	138.5	139.5	139.6	140.0	143.1	144.2	144.7	144.9	.1	3.5
Elementary and secondary	136.1	138.7	139.3	139.5	139.9	143.1	144.1	144.5	144.6	.1	3.4
Colleges and universities	135.5	137.7	139.6	139.6	139.8	142.6	144.4	144.9	145.6	.5	4.1
Public administration[2]	133.2	134.8	135.9	136.9	137.8	139.5	141.5	142.5	142.9	.3	3.7

[1] Consists of private industry workers (excluding farm and household workers) and State and local government (excluding Federal Government) workers.

[2] Consists of legislative, judicial, administrative, and regulatory activities.

[3] This series has the same industry and occupational coverage as the Hourly Earnings index, which was discontinued in January 1989.

[4] Includes, for example, library, social, and health services.

23. Employment Cost Index, benefits, private industry workers by occupation and industry group

[June 1989 = 100]

Series	1998			1999				2000		Percent change	
	June	Sept.	Dec.	Mar.	June	Sept.	Dec.	Mar.	June.	3 months ended	12 months ended
										June 2000	
Private industry workers	143.7	144.5	145.2	145.8	147.3	148.6	150.2	153.8	155.7	1.2	5.7
Workers, by occupational group:											
White-collar workers	145.6	146.6	147.4	147.9	149.4	151.0	152.5	156.3	158.5	1.4	6.1
Blue-collar workers	140.4	141.0	141.6	142.2	143.6	144.8	146.2	150.0	151.6	1.1	5.6
Workers, by industry division:											
Goods-producing	142.5	143.0	143.2	144.3	145.2	146.3	148.2	152.3	154.2	1.2	6.2
Service-producing	143.8	144.9	145.7	146.1	147.9	149.4	150.7	154.0	156.0	1.3	5.5
Manufacturing	142.4	142.6	142.7	143.6	144.5	145.7	147.8	152.3	153.9	1.1	6.5
Nonmanufacturing	143.9	145.0	145.8	146.3	148.0	149.4	150.7	154.0	156.1	1.4	5.5

24. Employment Cost Index, private nonfarm workers by bargaining status, region, and area size

[June 1989 = 100]

Series	1998			1999				2000		Percent change	
	June	Sept.	Dec.	Mar.	June	Sept.	Dec.	Mar.	June	3 months ended	12 months ended
										June 2000	
COMPENSATION											
Workers, by bargaining status[1]											
Union	135.3	136.8	137.5	138.0	139.0	140.2	141.2	143.0	144.4	1.0	3.9
Goods-producing	134.3	135.6	136.5	136.8	138.2	139.2	140.8	143.3	144.8	1.0	4.8
Service-producing	136.2	138.0	138.5	139.2	139.7	141.0	141.4	142.5	143.9	1.0	3.0
Manufacturing	134.6	136.0	136.9	137.0	138.1	139.1	141.0	144.5	145.4	.6	5.3
Nonmanufacturing	135.3	136.9	137.4	138.1	139.2	140.3	140.8	141.7	143.4	1.2	3.0
Nonunion	137.8	139.3	140.1	140.8	142.5	143.8	145.2	147.4	149.1	1.2	4.6
Goods-producing	136.9	137.7	138.3	139.7	140.5	141.8	143.1	145.4	147.2	1.2	4.8
Service-producing	138.0	139.7	140.6	141.1	143.0	144.4	145.7	148.0	149.6	1.1	4.6
Manufacturing	138.0	138.9	139.4	140.7	141.7	143.0	144.4	146.5	148.2	1.2	4.6
Nonmanufacturing	137.5	139.1	140.0	140.6	142.4	143.8	145.1	147.4	149.1	1.2	4.7
Workers, by region[1]											
Northeast	137.0	138.7	139.5	140.5	141.5	143.2	144.3	146.3	147.6	.9	4.3
South	136.4	137.6	138.1	139.1	140.7	141.8	143.0	145.0	146.7	1.2	4.3
Midwest (formerly North Central)	139.6	140.9	141.4	141.7	143.6	145.0	146.3	148.9	150.7	1.2	4.9
West	136.6	138.5	140.0	140.3	142.1	143.3	144.7	147.0	148.8	1.2	4.7
Workers, by area size[1]											
Metropolitan areas	137.5	139.1	139.8	140.4	142.0	143.3	144.7	146.9	148.6	1.2	4.6
Other areas	137.1	138.2	139.4	140.5	141.8	143.1	143.6	146.0	147.7	1.2	4.2
WAGES AND SALARIES											
Workers, by bargaining status[1]											
Union	130.7	132.4	133.1	133.6	134.7	135.7	136.5	137.2	138.5	.9	2.8
Goods-producing	129.4	131.0	131.7	132.3	133.8	134.9	136.1	137.2	138.4	.9	3.4
Service-producing	132.2	134.1	134.8	135.4	135.8	136.8	137.2	137.6	138.9	.9	2.3
Manufacturing	130.4	132.2	133.0	133.6	134.7	135.8	137.5	138.8	139.7	.6	3.7
Nonmanufacturing	130.8	132.4	133.1	133.7	134.6	135.6	135.9	136.4	137.8	1.0	2.4
Nonunion	135.7	137.4	138.3	139.0	140.7	142.0	143.3	145.1	146.7	1.1	4.3
Goods-producing	134.7	135.7	136.5	137.8	138.8	140.0	141.1	142.9	144.7	1.3	4.3
Service-producing	135.9	137.9	138.8	139.3	141.3	142.6	143.9	145.8	147.3	1.0	4.2
Manufacturing	136.2	137.3	138.2	139.4	140.5	141.7	142.9	144.4	146.1	1.2	4.0
Nonmanufacturing	135.3	137.1	138.0	138.6	140.5	141.8	143.0	145.0	146.6	1.1	4.3
Workers, by region[1]											
Northeast	133.8	135.4	136.4	137.1	138.2	139.9	140.9	142.3	143.7	1.0	4.0
South	134.9	136.5	136.7	137.9	139.4	140.2	141.5	143.0	144.6	1.1	3.7
Midwest (formerly North Central)	136.0	137.5	138.0	138.9	141.0	142.4	143.6	145.3	147.1	1.2	4.3
West	134.5	136.7	138.4	138.2	140.2	141.3	142.6	144.7	146.3	1.1	4.4
Workers, by area size[1]											
Metropolitan areas	135.1	136.9	137.7	138.3	139.9	141.2	142.5	144.1	145.7	1.1	4.1
Other areas	133.4	134.7	136.0	137.1	138.4	139.8	140.2	142.2	143.7	1.1	3.8

[1] The indexes are calculated differently from those for the occupation and industry groups. For a detailed description of the index calculation, see the *Monthly Labor Review* Technical Note, "Estimation procedures for the Employment Cost Index," May 1982.

25. Percent of full-time employees participating in employer-provided benefit plans, and in selected features within plans, medium and large private establishments, selected years, 1980–97

Item	1980	1982	1984	1986	1988	1989	1991	1993	1995	1997
Scope of survey (in 000's)	21,352	21,043	21,013	21,303	31,059	32,428	31,163	28,728	33,374	38,409
Number of employees (in 000's):										
With medical care	20,711	20,412	20,383	20,238	27,953	29,834	25,865	23,519	25,546	29,340
With life insurance	20,498	20,201	20,172	20,451	28,574	30,482	29,293	26,175	29,078	33,495
With defined benefit plan	17,936	17,676	17,231	16,190	19,567	20,430	18,386	16,015	17,417	19,202
Time-off plans										
Participants with:										
Paid lunch time	10	9	9	10	11	10	8	9	–	–
Average minutes per day	–	25	26	27	29	26	30	29	–	–
Paid rest time	75	76	73	72	72	71	67	68	–	–
Average minutes per day	–	25	26	26	26	26	28	26	–	–
Paid funeral leave	–	–	–	88	85	84	80	83	80	81
Average days per occurrence	–	–	–	3.2	3.2	3.3	3.3	3.0	3.3	3.7
Paid holidays	99	99	99	99	96	97	92	91	89	89
Average days per year	10.1	10.0	9.8	10.0	9.4	9.2	10.2	9.4	9.1	9.3
Paid personal leave	20	24	23	25	24	22	21	21	22	20
Average days per year	–	3.8	3.6	3.7	3.3	3.1	3.3	3.1	3.3	3.5
Paid vacations	100	99	99	100	98	97	96	97	96	95
Paid sick leave [1]	62	67	67	70	69	68	67	65	58	56
Unpaid maternity leave	–	–	–	–	33	37	37	60	–	–
Unpaid paternity leave	–	–	–	–	16	18	26	53	–	–
Unpaid family leave	–	–	–	–	–	–	–	–	84	93
Insurance plans										
Participants in medical care plans	97	97	97	95	90	92	83	82	77	76
Percent of participants with coverage for:										
Home health care	–	–	46	66	76	75	81	86	78	85
Extended care facilities	58	62	62	70	79	80	80	82	73	78
Physical exam	–	–	8	18	28	28	30	42	56	63
Percent of participants with employee contribution required for:										
Self coverage	26	27	36	43	44	47	51	61	67	69
Average monthly contribution	–	–	$11.93	$12.80	$19.29	$25.31	$26.60	$31.55	$33.92	$39.14
Family coverage	46	51	58	63	64	66	69	76	78	80
Average monthly contribution	–	–	$35.93	$41.40	$60.07	$72.10	$96.97	$107.42	$118.33	$130.07
Participants in life insurance plans	96	96	96	96	92	94	94	91	87	87
Percent of participants with:										
Accidental death and dismemberment insurance	69	72	74	72	78	71	71	76	77	74
Survivor income benefits	–	–	–	10	8	7	6	5	7	6
Retiree protection available	–	64	64	59	49	42	44	41	37	33
Participants in long-term disability insurance plans	40	43	47	48	42	45	40	41	42	43
Participants in sickness and accident insurance plans	54	51	51	49	46	43	45	44	–	–
Participants in short-term disability plans [1]	–	–	–	–	–	–	–	–	53	55
Retirement plans										
Participants in defined benefit pension plans	84	84	82	76	63	63	59	56	52	50
Percent of participants with:										
Normal retirement prior to age 65	55	58	63	64	59	62	55	52	52	52
Early retirement available	98	97	97	98	98	97	98	95	96	95
Ad hoc pension increase in last 5 years	–	–	47	35	26	22	7	6	4	10
Terminal earnings formula	53	52	54	57	55	64	56	61	58	56
Benefit coordinated with Social Security	45	45	56	62	62	63	54	48	51	49
Participants in defined contribution plans	–	–	–	60	45	48	48	49	55	57
Participants in plans with tax-deferred savings arrangements	–	–	–	33	36	41	44	43	54	55
Other benefits										
Employees eligible for:										
Flexible benefits plans	–	–	–	2	5	9	10	12	12	13
Reimbursement accounts [2]	–	–	–	5	12	23	36	52	38	32
Premium conversion plans	–	–	–	–	–	–	–	–	5	7

[1] The definitions for paid sick leave and short-term disability (previously sickness and accident insurance) were changed for the 1995 survey. Paid sick leave now includes only plans that specify either a maximum number of days per year or unlimited days. Short-terms disability now includes all insured, self-insured, and State-mandated plans available on a per-disability basis, as well as the unfunded per-disability plans previously reported as sick leave. Sickness and accident insurance, reported in years prior to this survey, included only insured, self-insured, and State-mandated plans providing per-disability benefits at less than full pay

[2] Prior to 1995, reimbursement accounts included premium conversion plans, which specifically allow medical plan participants to pay required plan premiums with pretax dollars. Also, reimbursement accounts that were part of flexible benefit plans were tabulated separately.

NOTE: Dash indicates data not available.

26. Percent of full-time employees participating in employer-provided benefit plans, and in selected features within plans, small private establishments and State and local governments, 1987, 1990, 1992, 1994, and 1996

Item	Small private establishments				State and local governments			
	1990	1992	1994	1996	1987	1990	1992	1994
Scope of survey (in 000's)	32,466	34,360	35,910	39,816	10,321	12,972	12,466	12,907
Number of employees (in 000's):								
With medical care	22,402	24,396	23,536	25,599	9,599	12,064	11,219	11,192
With life insurance	20,778	21,990	21,955	24,635	8,773	11,415	11,095	11,194
With defined benefit plan	6,493	7,559	5,480	5,883	9,599	11,675	10,845	11,708
Time-off plans								
Participants with:								
Paid lunch time	8	9	–	–	17	11	10	–
Average minutes per day	37	37	–	–	34	36	34	–
Paid rest time	48	49	–	–	58	56	53	–
Average minutes per day	27	26	–	–	29	29	29	–
Paid funeral leave	47	50	50	51	56	63	65	62
Average days per occurrence	2.9	3.0	3.1	3.0	3.7	3.7	3.7	3.7
Paid holidays	84	82	82	80	81	74	75	73
Average days per year[1]	9.5	9.2	7.5	7.6	10.9	13.6	14.2	11.5
Paid personal leave	11	12	13	14	38	39	38	38
Average days per year	2.8	2.6	2.6	3.0	2.7	2.9	2.9	3.0
Paid vacations	88	88	88	86	72	67	67	66
Paid sick leave [2]	47	53	50	50	97	95	95	94
Unpaid leave	17	18	–	–	57	51	59	–
Unpaid paternity leave	8	7	–	–	30	33	44	–
Unpaid family leave	–	–	47	48	–	–	–	93
Insurance plans								
Participants in medical care plans	69	71	66	64	93	93	90	87
Percent of participants with coverage for:								
Home health care	79	80	–	–	76	82	87	84
Extended care facilities	83	84	–	–	78	79	84	81
Physical exam	26	28	–	–	36	36	47	55
Percent of participants with employee contribution required for:								
Self coverage	42	47	52	52	35	38	43	47
Average monthly contribution	$25.13	$36.51	$40.97	$42.63	$15.74	$25.53	$28.97	$30.20
Family coverage	67	73	76	75	71	65	72	71
Average monthly contribution	$109.34	$150.54	$159.63	$181.53	$71.89	$117.59	$139.23	$149.70
Participants in life insurance plans	64	64	61	62	85	88	89	87
Percent of participants with:								
Accidental death and dismemberment insurance	78	76	79	77	67	67	74	64
Survivor income benefits	1	1	2	1	1	1	1	2
Retiree protection available	19	25	20	13	55	45	46	46
Participants in long-term disability insurance plans	19	23	20	22	31	27	28	30
Participants in sickness and accident insurance plans	6	26	26	–	14	21	22	21
Participants in short-term disability plans [2]	–	–	–	29	–	–	–	–
Retirement plans								
Participants in defined benefit pension plans	20	22	15	15	93	90	87	91
Percent of participants with:								
Normal retirement prior to age 65	54	50	–	47	92	89	92	92
Early retirement available	95	95	–	92	90	88	89	87
Ad hoc pension increase in last 5 years	7	4	–	–	33	16	10	13
Terminal earnings formula	58	54	–	53	100	100	100	99
Benefit coordinated with Social Security	49	46	–	44	18	8	10	49
Participants in defined contribution plans	31	33	34	38	9	9	9	9
Participants in plans with tax-deferred savings arrangements	17	24	23	28	28	45	45	24
Other benefits								
Employees eligible for:								
Flexible benefits plans	1	2	3	4	5	5	5	5
Reimbursement accounts [3]	8	14	19	12	5	31	50	64
Premium conversion plans	–	–	–	7	–	–	–	–

[1] Methods used to calculate the average number of paid holidays were revised in 1994 to count partial days more precisely. Average holidays for 1994 are not comparable with those reported in 1990 and 1992.

[2] The definitions for paid sick leave and short-term disability (previously sickness and accident insurance) were changed for the 1996 survey. Paid sick leave now includes only plans that specify either a maximum number of days per year or unlimited days. Short-term disability now includes all insured, self-insured, and State-mandated plans available on a per-disability basis, as well as the unfunded per-disability plans previously reported as sick leave. Sickness and accident insurance, reported in years prior to this survey, included only insured, self-insured, and State-mandated plans providing per-disability benefits at less than full pay.

[3] Prior to 1996, reimbursement accounts included premium conversion plans, which specifically allow medical plan participants to pay required plan premiums with pretax dollars. Also, reimbursement accounts that were part of flexible benefit plans were tabulated separately.

NOTE: Dash indicates data not available.

27. Work stoppages involving 1,000 workers or more

Measure	Annual totals		1999									2000			
	1998	1999	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.[P]	Feb.[P]	Mar.[P]	Apr.[P]
Number of stoppages:															
Beginning in period	34	17	2	3	2	1	1	2	0	1	0	0	1	2	6
In effect during period	34	21	4	6	6	6	3	5	2	2	1	1	2	4	7
Workers involved:															
Beginning in period (in thousands)	387	73	19.0	9.6	2.2	1.7	11.0	19.1	.0	2.0	.0	.0	17.0	5.7	26.7
In effect during period (in thousands)	387	80	23.4	22.0	21.6	16.3	15.4	34.5	10.1	5.0	3.0	3.0	20.0	25.7	29.7
Days idle:															
Number (in thousands)	5,116	1,995	272.4	314.8	309.4	266.4	118.8	176.2	67.1	63.6	63.0	60.0	298.0	327.6	272.2
Percent of estimated working time[1]	.02	.01	.01	.01	.01	.01	([2])	.01	([2])	([2])	([2])	([2])	.01	.01	.01

[1] Agricultural and government employees are included in the total employed and total working time; private household, forestry, and fishery employees are excluded. An explanation of the measurement of idleness as a percentage of the total time worked is found in " 'Total economy' measures of strike idleness," *Monthly Labor Review*, October 1968, pp. 54–56.

[2] Less than 0.005.

[P] = preliminary.

28. Consumer Price Indexes for All Urban Consumers and for Urban Wage Earners and Clerical Workers: U.S. city average, by expenditure category and commodity or service group

[1982–84 = 100, unless otherwise indicated]

Series	Annual average		1999					2000							
	1998	1999	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.
CONSUMER PRICE INDEX FOR ALL URBAN CONSUMERS															
All items	163.0	166.6	167.1	167.9	168.2	168.3	168.3	168.7	169.7	171.1	171.2	171.3	172.3	172.6	172.7
All items (1967 = 100)	488.3	499.0	500.7	502.9	503.9	504.1	504.1	505.5	508.4	512.5	512.9	513.3	516.1	517.2	517.2
Food and beverages	161.1	164.6	164.7	165.1	165.5	165.7	165.9	166.6	166.8	167.1	167.2	167.8	167.9	168.7	169.2
Food	160.7	164.1	164.2	164.6	165.1	165.2	165.4	166.1	166.3	166.5	166.6	167.3	167.3	168.1	168.7
Food at home	161.1	164.2	164.1	164.5	165.1	165.1	165.4	166.3	166.3	166.4	166.5	167.5	167.3	168.3	168.9
Cereals and bakery products	181.1	185.0	184.9	185.2	185.2	184.8	185.9	185.6	186.0	186.1	187.2	188.6	187.7	189.6	189.9
Meats, poultry, fish, and eggs	147.3	147.9	148.5	149.2	149.2	150.5	149.8	150.2	151.3	152.4	152.9	153.9	154.9	155.8	156.8
Dairy and related products[1]	150.8	159.6	156.5	158.7	164.1	164.6	162.1	160.4	160.9	159.1	160.6	159.6	159.5	160.5	161.0
Fruits and vegetables	198.2	203.1	202.1	202.6	202.2	201.2	204.5	208.4	203.0	201.7	201.6	204.3	199.9	201.0	202.5
Nonalcoholic beverages and beverage materials	133.0	134.3	134.5	134.2	134.6	133.9	134.7	137.1	138.4	138.5	137.6	137.3	137.5	138.5	138.2
Other foods at home	150.8	153.5	154.2	153.9	153.7	153.0	153.3	154.3	154.4	155.1	154.0	155.4	156.2	156.6	156.9
Sugar and sweets	150.2	152.3	152.7	153.5	153.3	152.1	152.3	154.8	154.4	154.6	152.4	153.7	154.0	154.1	154.6
Fats and oils	146.9	148.3	148.6	148.5	149.0	145.3	145.1	147.0	145.6	145.9	144.8	147.0	146.6	148.1	148.9
Other foods	165.5	168.9	169.9	169.2	168.7	169.0	169.4	169.8	170.5	171.6	170.7	172.1	173.4	173.5	173.7
Other miscellaneous foods[1,2]	102.6	104.9	104.8	105.3	104.3	103.9	105.7	104.3	106.4	107.0	105.2	106.4	108.4	108.8	109.5
Food away from home[1]	161.1	165.1	165.6	165.8	166.2	166.5	166.8	167.2	167.6	167.9	168.1	168.3	168.6	169.1	169.5
Other food away from home[1,2]	101.6	105.2	105.8	106.4	106.8	106.9	106.9	107.5	107.9	107.9	108.0	108.1	108.1	108.7	109.3
Alcoholic beverages	165.7	169.7	170.2	170.7	170.5	171.2	171.8	172.4	173.0	173.5	173.6	173.8	174.4	175.2	175.6
Housing	160.4	163.9	165.0	165.2	165.0	164.9	164.8	165.8	166.9	167.6	167.6	167.8	169.4	170.4	170.7
Shelter	182.1	187.3	188.3	188.3	188.5	188.6	188.6	189.8	190.7	191.8	191.8	192.0	192.9	193.7	194.3
Rent of primary residence	172.1	177.5	177.9	178.4	178.8	179.8	180.3	180.8	181.2	181.7	181.9	182.3	182.8	183.5	184.2
Lodging away from home	109.0	112.3	117.1	113.8	113.1	108.5	105.8	111.3	115.1	120.9	119.4	117.5	120.5	122.8	123.0
Owners' equivalent rent of primary residence[3]	187.8	192.9	193.4	193.9	194.2	194.9	195.2	195.7	196.1	196.4	196.8	197.2	197.7	198.2	198.8
Tenants' and household insurance[1,2]	99.8	101.3	102.2	102.3	102.2	102.1	102.2	102.4	102.4	102.6	103.1	103.8	103.9	104.2	104.0
Fuels and utilities	128.5	128.8	131.4	132.7	130.3	130.0	129.6	129.9	132.9	131.8	131.7	132.4	138.9	141.3	140.9
Fuels	113.7	113.5	116.2	117.6	115.0	114.6	114.1	114.3	117.6	116.3	116.1	116.8	124.0	126.5	125.9
Fuel oil and other fuels	90.0	91.4	89.2	93.9	97.6	100.7	106.3	114.4	147.2	130.1	123.7	121.6	120.9	120.8	120.8
Gas (piped) and electricity	121.2	120.9	124.1	125.3	122.0	121.4	120.3	119.8	120.6	120.7	121.0	122.0	130.2	133.0	132.4
Household furnishings and operations	126.6	126.7	126.8	127.0	126.6	126.4	126.4	127.0	127.2	127.9	128.2	128.1	128.1	128.6	128.6
Apparel	133.0	131.3	127.5	131.8	134.6	133.6	130.1	126.8	129.2	132.5	133.3	132.2	128.3	124.5	125.3
Men's and boys' apparel	131.8	131.1	127.1	130.5	134.0	133.2	131.5	129.2	130.0	131.5	131.6	132.6	129.4	126.4	126.8
Women's and girls' apparel	126.0	123.3	117.9	125.4	128.4	126.6	121.8	116.0	120.0	125.9	126.7	124.4	119.2	113.9	115.6
Infants' and toddlers' apparel[1]	126.1	129.0	128.3	129.9	132.4	132.6	133.0	133.3	133.1	133.9	132.3	131.7	130.5	128.1	126.7
Footwear	128.0	125.7	123.8	124.7	126.1	126.4	123.7	121.6	122.1	124.7	126.7	126.1	123.9	120.3	120.7
Transportation	141.6	144.4	145.7	146.5	147.3	147.6	148.3	148.3	149.7	153.4	152.9	153.1	155.7	155.0	153.2
Private transportation	137.9	140.5	141.9	142.9	143.3	143.6	144.4	144.4	145.6	149.2	148.7	148.8	151.4	150.6	148.6
New and used motor vehicles[2]	100.1	100.1	99.7	100.1	100.5	100.9	101.1	100.8	100.3	100.4	100.8	101.0	100.8	100.6	100.4
New vehicles	143.4	142.9	141.4	141.6	142.3	143.1	143.6	143.3	143.0	143.3	143.5	143.3	142.9	142.5	141.9
Used cars and trucks[1]	150.6	152.0	153.8	155.7	156.4	156.1	155.0	153.9	153.0	153.0	154.0	155.4	155.7	155.3	155.2
Motor fuel	92.2	100.7	107.8	110.3	110.0	109.3	112.2	112.6	118.1	131.7	128.7	128.3	139.0	136.1	128.4
Gasoline (all types)	91.6	100.1	107.2	109.7	109.4	108.7	111.5	111.9	117.3	130.9	127.9	127.6	138.3	135.4	127.7
Motor vehicle parts and equipment	101.1	100.5	100.1	100.6	100.5	101.2	100.8	100.8	100.9	101.4	101.0	101.1	101.2	101.5	101.5
Motor vehicle maintenance and repair	167.1	171.9	172.1	172.8	173.2	173.6	173.8	174.6	175.2	175.7	175.9	176.3	176.8	177.2	178.2
Public transportation	190.3	197.7	197.1	194.7	201.5	202.2	201.2	199.5	204.2	209.8	209.2	210.4	212.6	213.7	215.7
Medical care	242.1	250.6	251.9	252.3	252.8	253.3	254.2	255.5	257.0	258.1	258.8	259.4	260.5	261.4	262.6
Medical care commodities	221.8	230.7	232.5	233.1	233.2	233.7	234.6	235.2	235.5	236.3	237.0	237.5	238.2	238.6	239.2
Medical care services	246.8	255.1	256.2	256.6	257.1	257.7	258.5	260.1	262.0	263.2	263.9	264.4	265.6	266.7	268.0
Professional services	222.2	229.2	230.1	230.4	230.9	231.4	231.7	233.1	234.9	236.1	236.6	237.1	237.9	238.3	238.9
Hospital and related services	287.5	299.5	301.3	302.1	302.9	303.9	306.3	308.4	310.5	311.5	312.7	313.5	315.6	318.1	321.3
Recreation[2]	101.1	102.1	102.2	101.7	101.8	101.9	102.0	102.3	102.5	102.9	102.9	103.1	103.4	103.7	103.9
Video and audio[1,2]	101.1	100.7	100.9	100.1	100.1	100.1	100.1	100.5	100.8	100.9	100.3	101.3	101.5	101.3	101.6
Education and communication[2]	100.3	101.2	101.2	101.9	102.1	102.2	102.3	102.7	102.2	102.0	101.8	101.8	101.5	102.0	102.8
Education[2]	102.1	107.0	107.5	109.4	109.6	109.3	109.3	110.2	110.6	110.6	110.7	110.9	111.5	111.8	113.0
Educational books and supplies	250.8	261.7	264.5	267.0	269.0	255.7	256.0	273.9	278.3	276.9	276.7	276.8	277.5	278.1	280.2
Tuition, other school fees, and child care	294.2	308.4	309.9	315.3	315.9	316.3	316.3	317.3	318.0	318.3	318.7	319.2	320.9	321.7	325.4
Communication[1,2]	98.7	96.0	95.6	95.3	95.3	95.9	95.9	96.0	94.7	94.3	93.8	93.7	92.6	93.3	93.7
Information and information processing[1,2]	98.5	95.5	95.0	94.7	94.7	95.3	95.4	95.5	94.1	93.6	93.1	93.0	91.8	92.5	93.0
Telephone services[1,2]	100.7	100.1	99.8	99.6	99.8	100.6	100.7	100.9	99.4	98.9	98.6	98.5	97.2	98.2	98.9
Information and information processing other than telephone services[1,4]	39.9	30.5	29.8	29.3	28.7	28.2	28.2	28.0	27.6	27.2	26.7	26.6	26.0	25.7	25.2
Personal computers and peripheral equipment[1,2]	78.2	53.5	50.9	49.7	48.2	47.0	47.2	46.4	45.1	44.2	42.7	42.4	41.2	40.3	39.5
Other goods and services	237.7	258.3	257.6	262.6	263.2	263.0	263.0	264.7	266.7	268.0	271.9	270.2	269.6	272.2	271.6
Tobacco and smoking products	274.8	355.8	350.1	373.8	373.3	369.8	369.1	375.1	383.0	387.3	404.4	393.5	388.5	400.7	394.1
Personal care[1]	156.7	161.1	161.4	161.8	162.4	162.8	162.9	163.4	163.8	164.3	164.8	165.1	165.4	165.7	166.2
Personal care products[1]	148.3	151.8	152.3	153.0	153.4	153.3	152.5	152.8	152.6	153.5	153.4	153.0	153.6	153.7	154.3
Personal care services[1]	166.0	171.4	171.9	172.1	172.9	173.9	174.3	174.9	175.6	176.2	176.2	177.3	177.9	178.2	179.3

28. Continued—Consumer Price Indexes for All Urban Consumers and for Urban Wage Earners and Clerical Workers: U.S. city average, by expenditure category and commodity or service group

[1982–84 = 100, unless otherwise indicated]

Series	Annual average		1999					2000							
	1998	1999	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.
Miscellaneous personal services	234.7	243.0	243.9	244.6	245.6	246.0	246.6	247.6	248.9	249.4	250.9	251.7	252.0	252.9	253.6
Commodity and service group:															
Commodities	141.9	144.4	144.5	145.8	146.4	146.2	146.1	146.2	147.4	149.2	149.3	149.2	149.7	149.3	148.6
Food and beverages	161.1	164.6	164.7	165.1	165.5	165.7	165.9	166.6	166.8	167.1	167.2	167.8	167.9	168.7	169.2
Commodities less food and beverages	130.5	132.5	132.5	134.3	134.9	134.6	134.4	134.0	135.7	138.4	138.4	138.0	138.6	137.7	136.4
Nondurables less food and beverages	132.6	137.5	138.0	141.0	141.9	141.3	140.9	140.5	143.9	148.5	148.5	147.6	149.1	147.5	145.6
Apparel	133.0	131.3	127.5	131.8	134.6	133.6	130.1	126.8	129.2	132.5	133.3	132.2	128.3	124.5	125.3
Nondurables less food, beverages, and apparel	137.4	146.0	148.8	151.2	151.2	150.7	152.1	153.1	157.2	162.7	162.3	161.5	165.8	165.4	162.0
Durables	127.6	126.0	125.4	125.7	125.9	126.0	125.9	125.7	125.3	125.6	125.6	125.8	125.4	125.2	124.7
Services	184.2	188.8	189.9	190.1	190.2	190.5	190.5	191.4	192.2	193.1	193.3	193.6	195.0	196.1	196.7
Rent of shelter[3]	189.6	195.0	196.1	196.1	196.3	196.3	196.3	197.6	198.5	199.7	199.8	199.9	200.8	201.7	202.3
Transporatation services	187.9	190.7	190.2	189.9	191.9	192.7	192.8	193.0	193.7	195.0	195.2	195.7	196.1	196.5	197.4
Other services	216.9	223.1	223.9	224.5	225.1	226.0	226.5	227.4	227.4	227.8	228.0	228.4	228.7	229.9	231.3
Special indexes:															
All items less food	163.4	167.0	167.7	168.5	168.8	168.8	168.8	169.2	170.3	171.9	172.0	172.1	173.2	173.5	173.4
All items less shelter	157.2	160.2	160.6	161.6	162.0	162.1	162.1	162.3	163.3	164.8	164.9	165.1	166.0	166.2	166.0
All items less medical care	158.6	162.0	162.5	163.2	163.6	163.6	163.6	164.0	164.9	166.3	166.4	166.5	167.5	167.8	167.8
Commodities less food	132.0	134.0	134.0	135.8	136.3	136.1	135.9	135.6	137.2	139.9	139.9	139.4	140.1	139.2	138.0
Nondurables less food	134.6	139.4	139.9	142.8	143.7	143.1	142.8	142.4	145.7	150.1	150.1	149.3	150.7	149.3	147.5
Nondurables less food and apparel	139.2	147.5	150.0	152.3	152.3	151.9	153.2	154.2	158.0	163.0	162.7	161.9	166.0	165.7	162.6
Nondurables	146.9	151.2	151.5	153.2	154.0	153.7	153.6	153.7	155.6	158.1	158.2	158.0	158.8	158.4	157.6
Services less rent of shelter[3]	191.8	195.8	196.9	197.3	197.4	197.9	198.0	198.6	199.2	199.9	200.2	200.9	202.9	204.2	205.0
Services less medical care services	178.4	182.7	183.8	183.9	184.1	184.3	184.3	185.1	185.8	186.7	186.9	187.2	188.6	189.6	190.3
Energy	102.9	106.6	111.3	113.2	111.6	111.2	112.2	112.5	116.7	122.2	120.7	121.0	129.6	129.7	125.9
All items less energy	170.9	174.4	174.5	175.1	175.7	175.8	175.7	176.2	176.8	177.7	178.0	178.1	178.2	178.5	179.0
All items less food and energy	173.4	177.0	177.1	177.7	178.3	178.4	178.2	178.7	179.4	180.4	180.7	180.8	180.8	181.1	181.6
Commodities less food and energy	143.2	144.1	143.0	144.6	145.3	145.0	144.2	143.6	144.2	145.3	145.9	145.5	144.5	143.8	143.7
Energy commodities	92.1	100.0	106.3	109.1	109.1	108.7	111.8	112.8	120.6	131.7	128.4	127.9	137.6	135.0	127.9
Services less energy	190.6	195.7	196.5	196.6	197.2	197.5	197.7	198.7	199.5	200.5	200.7	200.9	201.6	202.5	203.3
CONSUMER PRICE INDEX FOR URBAN WAGE EARNERS AND CLERICAL WORKERS															
All items	159.7	163.2	163.8	164.7	165.0	165.1	165.1	165.5	166.4	167.8	167.9	168.1	169.1	169.3	169.2
All items (1967 = 100)	475.6	486.2	487.8	490.5	491.5	491.7	491.8	492.9	495.6	499.7	500.1	500.7	503.8	504.4	503.9
Food and beverages	160.4	163.8	163.9	164.3	164.7	164.9	165.2	165.9	166.1	166.4	166.5	167.2	167.3	168.0	168.6
Food	160.0	163.4	163.5	163.9	164.4	164.5	164.7	165.4	165.6	165.9	166.0	166.7	166.8	167.6	168.1
Food at home	160.0	163.0	162.9	163.5	164.0	164.0	164.2	165.1	165.1	165.3	165.4	166.4	166.3	167.3	167.9
Cereals and bakery products	180.9	184.7	184.8	185.0	185.0	184.5	185.7	185.5	185.8	185.9	186.9	188.4	187.3	189.2	189.5
Meats, poultry, fish, and eggs	147.0	147.6	148.2	148.9	148.8	150.1	149.4	149.8	150.8	152.0	152.5	153.5	154.6	155.4	156.5
Dairy and related products[1]	150.4	159.4	156.0	158.4	164.0	164.6	161.9	159.9	160.4	158.7	160.2	159.3	159.4	160.5	160.9
Fruits and vegetables	197.0	201.8	201.2	201.6	201.0	199.8	202.8	207.0	201.7	200.5	200.5	203.1	198.9	200.0	201.5
Nonalcoholic beverages and beverage materials	131.8	133.2	133.2	133.0	133.4	132.7	133.5	136.0	137.6	137.8	136.7	136.4	136.7	137.5	137.4
Other foods at home	150.2	152.8	153.5	153.3	152.9	152.3	152.7	153.7	153.8	154.5	153.4	154.9	155.6	156.0	156.2
Sugar and sweets	150.1	152.2	152.6	153.3	153.2	152.0	152.3	154.8	154.3	154.5	152.3	153.6	153.9	154.2	154.4
Fats and oils	146.5	147.9	148.3	148.1	148.6	144.9	144.7	146.8	145.2	145.7	144.5	146.9	146.4	147.9	148.6
Other foods	165.4	168.8	169.7	169.2	168.5	168.8	169.4	169.8	170.5	171.6	170.7	172.2	173.4	173.5	173.6
Other miscellaneous foods[1,2]	102.6	104.6	104.4	105.1	103.8	103.4	105.2	103.9	106.2	106.7	104.7	106.1	108.0	108.4	109.0
Food away from home[1]	161.1	165.0	165.5	165.8	166.1	166.5	166.8	167.1	167.6	167.9	168.1	168.3	168.6	169.1	169.5
Other food away from home[1,2]	101.6	105.1	105.8	106.2	106.6	106.8	106.9	107.4	107.8	107.8	108.3	108.5	108.4	108.8	109.6
Alcoholic beverages	164.6	168.8	169.2	169.8	169.5	170.4	171.0	171.6	172.2	172.8	172.9	172.9	173.6	174.4	174.7
Housing	156.7	160.0	161.0	161.3	161.0	161.1	161.1	161.8	162.7	163.2	163.3	163.6	165.2	166.1	166.3
Shelter	176.6	181.6	182.4	182.6	182.8	183.1	183.3	184.1	184.8	185.6	185.8	186.1	186.8	187.5	188.0
Rent of primary residence	171.7	177.1	177.5	178.0	178.4	179.3	179.9	180.3	180.7	181.2	181.4	181.8	182.3	183.1	183.7
Lodging away from home[2]	109.0	122.2	116.8	113.8	113.1	108.4	105.7	110.8	114.5	119.9	118.7	117.8	120.9	123.1	122.5
Owners' equivalent rent of primary residence[3]	171.1	175.7	176.1	176.5	176.8	177.4	177.8	178.2	178.6	178.8	179.1	179.5	180.0	180.4	180.9
Tenants' and household insurance[1,2]	100.0	101.6	102.3	102.5	102.4	102.3	102.4	102.6	102.6	102.8	103.3	104.0	104.1	104.4	104.2
Fuels and utilities	128.4	128.7	131.4	132.6	130.1	129.8	129.2	129.5	132.0	131.2	131.1	131.9	138.7	141.0	140.4
Fuels	113.3	113.0	115.9	117.2	114.4	114.0	113.5	113.6	116.3	115.4	115.2	116.0	123.3	125.7	125.0
Fuel oil and other fuels	90.3	91.7	89.3	93.9	97.7	100.7	106.0	114.0	144.5	129.6	123.0	120.9	120.2	120.1	120.1
Gas (piped) and electricity	120.8	120.4	123.7	124.9	121.5	120.9	119.8	119.4	120.1	120.2	120.5	121.6	129.9	132.5	131.8
Household furnishings and operations	125.0	124.7	124.7	124.8	124.5	124.2	124.2	124.5	124.6	125.3	125.6	125.5	125.3	125.7	125.7
Apparel	131.6	130.1	126.4	130.5	133.1	132.3	129.0	125.9	127.9	131.0	131.8	130.9	127.3	123.6	124.0
Men's and boys' apparel	131.4	131.2	127.2	130.3	134.0	133.3	131.6	129.3	129.9	131.5	131.5	132.7	129.5	126.6	126.8
Women's and girls' apparel	123.9	121.3	116.0	123.3	126.0	124.4	119.8	114.2	118.0	123.5	124.3	122.1	117.4	112.2	113.2
Infants' and toddlers' apparel[1]	126.7	130.3	129.6	131.4	134.1	134.3	134.8	134.9	134.7	135.7	134.1	133.4	132.0	129.8	128.4
Footwear	128.7	126.2	124.4	125.1	126.6	126.9	124.2	122.3	122.6	124.7	127.1	126.6	124.6	120.9	121.5
Transportation	140.5	143.4	145.0	146.0	146.6	146.9	147.6	147.7	149.1	152.9	152.2	152.5	155.5	154.4	152.3
Private transportation	138.0	140.7	142.4	143.6	143.9	144.2	145.0	145.1	146.4	150.1	149.5	149.7	152.8	151.6	149.3
New and used motor vehicles[2]	100.3	100.4	100.2	100.7	101.2	101.5	101.5	101.2	100.7	100.8	101.2	101.5	101.4	101.1	100.9

28. Continued—Consumer Price Indexes for All Urban Consumers and for Urban Wage Earners and Clerical Workers: U.S. city average, by expenditure category and commodity or service group

[1982–84 = 100, unless otherwise indicated]

Series	Annual average		1999					2000							
	1998	1999	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.
New vehicles	144.6	144.0	142.6	142.8	143.5	144.3	144.7	144.5	144.2	144.5	144.7	144.5	144.1	143.7	143.1
Used cars and trucks[1]	152.0	153.3	155.2	157.0	157.7	157.3	156.3	155.3	154.4	154.4	155.4	156.8	157.1	156.6	156.5
Motor fuel	92.2	100.8	107.8	110.6	110.0	109.5	112.3	112.9	118.6	132.0	128.5	128.5	140.1	136.2	128.0
Gasoline (all types)	91.7	100.2	107.3	110.0	109.4	108.9	111.7	112.3	117.9	131.2	127.8	127.9	139.4	135.5	127.3
Motor vehicle parts and equipment	100.5	100.0	99.6	99.9	99.8	100.6	100.2	100.3	100.5	100.9	100.6	100.5	100.5	100.8	100.7
Motor vehicle maintenance and repair	168.2	173.3	173.5	174.3	174.7	175.1	175.2	176.1	176.6	177.2	177.4	177.8	178.3	178.7	179.6
Public transportation	187.1	193.1	192.5	190.7	196.3	197.0	196.0	194.8	198.8	203.4	202.9	203.9	205.5	206.9	208.7
Medical care	241.4	249.7	251.0	251.4	251.9	252.5	253.2	254.5	256.2	257.3	258.0	258.5	259.7	260.6	261.7
Medical care commodities	218.6	226.8	228.4	229.0	229.1	229.5	230.2	230.7	231.0	231.8	232.4	232.9	233.7	234.2	234.6
Medical care services	246.6	254.9	256.0	256.4	257.0	257.6	258.4	259.9	261.9	263.1	263.8	264.4	265.6	266.6	267.9
Professional services	223.7	230.8	231.7	232.0	232.5	233.1	233.4	234.8	236.7	238.0	238.6	239.0	239.9	240.3	240.9
Hospital and related services	283.6	295.5	297.3	298.2	298.9	299.8	302.1	304.1	306.4	307.5	308.7	309.5	311.7	314.2	317.1
Recreation[2]	100.9	101.3	101.5	101.0	101.1	101.0	101.2	101.4	101.6	102.0	102.0	102.3	102.5	102.7	102.9
Video and audio[1,2]	101.1	100.5	100.7	99.8	99.9	99.9	99.8	100.2	100.4	100.6	100.0	101.0	101.2	100.9	101.3
Education and communication[2]	100.4	101.5	101.5	102.1	102.3	102.5	102.5	103.0	102.5	102.2	102.1	102.1	101.7	102.2	103.0
Education[2]	102.1	107.2	107.7	109.5	109.7	109.4	109.4	110.5	110.9	111.0	111.1	111.3	111.8	112.1	113.2
Educational books and supplies	253.1	264.1	267.2	269.9	271.8	256.5	256.9	276.6	281.3	280.0	279.9	280.0	280.9	281.5	283.6
Tuition, other school fees, and child care	288.5	302.8	304.1	309.5	310.0	310.4	310.4	311.7	312.7	312.8	313.4	313.8	315.4	316.2	319.2
Communication[1,2]	99.1	96.9	96.5	96.2	96.3	96.9	97.0	97.1	95.7	95.3	94.8	94.7	93.6	94.3	94.8
Information and information processing[1,2]	99.0	96.5	96.1	95.8	95.9	96.6	96.6	96.7	95.3	94.8	94.4	94.3	93.0	93.9	94.4
Telephone services[1,2]	100.7	100.2	99.9	99.7	100.0	100.8	100.9	101.1	99.6	99.1	98.8	98.7	97.4	98.4	99.1
Information and information processing other than telephone services[1,4]	41.2	31.6	30.8	30.3	29.9	29.3	29.3	28.9	28.6	28.2	27.6	27.5	27.0	26.6	26.1
Personal computers and peripheral equipment[1,2]	77.9	53.1	50.6	49.4	48.1	46.9	46.9	45.7	44.5	43.6	42.0	41.8	40.7	39.8	39.1
Other goods and services	236.1	261.9	260.7	267.3	267.9	267.4	267.3	269.3	271.7	273.3	278.0	275.4	274.5	277.9	276.8
Tobacco and smoking products	274.8	356.2	350.6	374.4	374.0	370.4	369.7	375.7	383.6	387.8	404.9	393.7	388.7	400.9	394.2
Personal care[1]	156.8	161.3	161.6	161.9	162.6	163.0	163.1	163.5	163.9	164.3	164.6	164.9	165.3	165.5	166.1
Personal care products[1]	149.3	152.5	153.1	153.7	154.1	154.0	153.1	153.4	153.2	154.1	153.9	153.4	154.0	154.1	155.0
Personal care services[1]	166.3	171.7	172.2	172.4	173.2	174.4	174.7	175.3	176.1	176.6	176.6	177.7	178.3	178.6	179.7
Miscellaneous personal services	234.0	243.1	243.8	244.5	245.5	245.9	246.7	247.6	248.9	249.4	250.4	251.2	251.4	252.2	253.0
Commodity and service group:															
Commodities	141.8	144.7	144.8	146.3	146.8	146.6	146.6	146.6	147.8	149.8	149.9	149.9	150.6	150.1	149.3
Food and beverages	160.4	163.8	163.9	164.3	164.7	164.9	165.2	165.9	166.1	166.4	166.5	167.2	167.3	168.0	168.6
Commodities less food and beverages	130.6	133.2	133.4	135.4	165.9	135.6	135.4	135.1	136.8	139.6	139.6	139.3	140.3	139.2	137.7
Nondurables less food and beverages	132.1	138.1	138.8	142.1	142.9	142.2	142.0	141.7	145.1	150.2	150.2	149.4	151.5	149.7	147.2
Apparel	131.6	130.1	126.4	130.5	133.1	132.3	129.0	125.9	127.9	131.0	131.8	130.9	127.3	123.6	124.0
Nondurables less food, beverages, and apparel	137.0	147.2	150.2	153.2	153.1	152.5	153.9	155.0	159.3	165.7	165.2	164.4	169.6	168.7	164.6
Durables	127.3	126.0	125.7	126.1	126.3	126.4	126.3	126.0	125.6	125.8	126.0	126.2	125.9	125.6	125.2
Services	181.0	185.3	186.3	186.6	186.7	187.1	187.2	187.9	188.5	189.2	189.4	189.8	191.2	192.2	192.8
Rent of shelter[3]	170.1	174.9	175.6	175.8	176.1	176.3	176.5	177.3	178.0	178.7	178.9	179.2	179.9	180.6	181.1
Transporatation services	185.4	187.9	187.4	187.3	189.0	189.8	189.9	190.2	190.8	191.8	192.0	192.4	192.6	193.0	193.8
Other services	213.7	219.6	220.3	220.9	221.6	222.3	222.9	223.8	223.7	224.0	224.2	224.6	224.7	225.9	227.3
Special indexes:															
All items less food	159.5	163.1	163.7	164.7	165.0	165.1	165.1	165.4	166.4	168.0	168.2	168.3	169.5	169.6	169.2
All items less shelter	155.0	158.1	158.6	159.7	160.1	160.1	160.1	160.3	161.3	162.8	163.0	163.1	164.3	164.3	163.9
All items less medical care	155.8	159.2	159.7	160.7	161.0	161.1	161.1	161.4	162.3	163.6	163.8	164.0	165.0	165.1	164.9
Commodities less food	132.0	134.6	134.8	136.7	137.2	137.0	136.8	136.5	138.2	141.0	141.0	140.7	141.7	140.6	139.1
Nondurables less food	134.1	140.0	140.7	143.8	144.6	144.0	143.8	143.6	146.8	151.7	151.7	150.9	152.9	151.2	148.9
Nondurables less food and apparel	138.7	148.4	151.2	154.0	153.8	153.4	154.7	155.8	159.8	165.7	165.3	164.5	169.4	168.7	164.9
Nondurables	146.5	151.3	151.7	153.6	154.3	154.0	154.0	154.2	156.0	158.8	158.9	158.8	159.9	159.4	158.3
Services less rent of shelter[3]	170.7	174.1	175.0	175.5	175.4	175.8	175.9	176.4	176.9	177.4	177.7	178.2	180.2	181.3	181.9
Services less medical care services	175.4	179.5	180.4	180.7	180.8	181.1	181.2	181.9	182.4	183.1	183.3	183.7	185.1	186.0	186.6
Energy	102.1	106.1	111.1	113.1	111.4	111.0	112.1	112.5	116.7	122.9	121.0	121.5	130.9	130.1	125.7
All items less energy	167.6	171.1	171.1	171.8	172.4	172.6	172.5	172.8	173.3	174.1	174.5	174.6	174.6	174.9	175.3
All items less food and energy	169.6	173.1	173.1	173.9	174.5	174.7	174.5	174.8	175.3	176.2	176.7	176.7	176.6	176.8	177.2
Commodities less food and energy	142.7	144.3	143.3	145.0	145.7	145.4	144.6	144.1	144.6	145.6	146.4	146.0	145.0	144.5	144.2
Energy commodities	92.3	100.3	106.8	109.7	109.4	109.1	112.1	113.1	120.4	132.0	128.3	128.3	139.1	135.4	127.7
Services less energy	187.7	192.6	193.2	193.4	194.0	194.4	194.7	195.5	196.2	196.9	197.1	197.5	198.0	198.8	199.5

[1] Not seasonally adjusted.

[2] Indexes on a December 1997 = 100 base.

[3] Indexes on a December 1982 = 100 base.

[4] Indexes on a December 1988 = 100 base.

– Data not available.

NOTE: Index applies to a month as a whole, not to any specific date.

29. Consumer Price Index: U.S. city average and available local area data: all items

[1982–84 = 100, unless otherwise indicated]

Area	Pricing schedule[1]	All Urban Consumers							Urban Wage Earners						
		1999		2000					1999		2000				
		July	Aug.	Apr.	May	June	July	Aug.	July	Aug.	Apr.	May	June	July	Aug.
U.S. city average	M	166.7	167.1	171.2	171.3	172.3	172.6	172.7	163.3	163.8	167.9	168.1	169.1	169.3	169.2
Region and area size[2]															
Northeast urban	M	173.4	174.1	178.4	178.2	178.8	179.6	179.7	170.2	170.9	175.3	175.3	175.8	176.6	176.5
Size A—More than 1,500,000	M	174.5	175.1	179.1	179.0	179.6	180.4	180.7	170.3	171.0	175.0	175.0	175.5	176.4	176.5
Size B/C—50,000 to 1,500,000[3]	M	103.9	104.3	107.4	107.3	107.6	108.1	107.8	103.4	103.8	107.0	106.9	107.2	107.6	107.3
Midwest urban[4]	M	162.9	163.2	166.9	167.4	169.5	168.7	168.1	159.1	159.4	163.2	163.8	166.1	165.0	164.2
Size A—More than 1,500,000	M	164.6	164.8	168.2	169.0	171.2	170.3	169.9	159.9	160.2	163.6	164.5	166.8	165.7	165.2
Size B/C—50,000 to 1,500,000[3]	M	103.9	104.2	106.8	106.9	108.3	107.6	107.0	103.8	104.0	106.9	107.0	108.6	107.6	106.8
Size D—Nonmetropolitan (less than 50,000)	M	157.2	157.7	161.3	161.4	163.1	163.1	162.4	155.4	156.1	159.9	160.0	161.7	161.6	160.9
South urban	M	162.2	162.6	166.6	166.6	167.4	167.9	167.9	160.1	160.6	164.9	164.9	165.7	166.2	166.0
Size A—More than 1,500,000	M	161.4	161.9	166.1	166.1	167.1	167.8	167.8	158.9	159.5	163.7	163.7	164.9	165.6	165.4
Size B/C—50,000 to 1,500,000[3]	M	104.3	104.4	107.1	107.1	107.6	107.7	107.7	103.9	104.0	106.9	107.0	107.4	107.6	107.5
Size D—Nonmetropolitan (less than 50,000)	M	162.6	163.7	166.7	167.0	166.9	167.6	167.7	163.0	164.1	167.6	167.9	168.0	168.5	168.6
West urban	M	168.9	169.5	173.7	173.9	174.3	175.2	175.8	164.7	165.3	169.4	169.6	169.9	170.7	171.2
Size A—More than 1,500,000	M	169.9	170.5	175.1	175.4	175.7	176.7	177.6	164.0	164.7	169.0	169.3	169.6	170.6	171.2
Size B/C—50,000 to 1,500,000[3]	M	104.9	105.2	107.2	107.3	107.6	108.1	108.3	104.7	105.1	107.1	107.1	107.4	107.9	108.0
Size classes:															
A[5]	M	151.1	151.6	155.2	155.4	156.3	156.7	156.9	149.6	150.1	153.7	154.0	155.0	155.3	155.3
B/C[3]	M	104.2	104.5	107.1	107.1	107.7	107.8	107.7	103.9	104.1	106.9	107.0	107.6	107.6	107.3
D	M	162.4	163.1	166.7	166.8	167.4	167.7	167.6	161.3	162.1	166.0	166.1	166.8	166.9	166.7
Selected local areas[6]															
Chicago–Gary–Kenosha, IL–IN–WI	M	169.4	169.3	171.7	173.5	175.8	174.4	173.5	163.4	163.5	166.1	167.9	170.2	168.7	167.8
Los Angeles–Riverside–Orange County, CA	M	165.8	166.3	170.6	171.1	170.9	171.7	172.2	159.2	159.8	163.9	164.4	164.2	164.9	165.2
New York, NY–Northern NJ–Long Island, NY–NJ–CT–PA	M	177.2	177.6	181.2	181.3	181.9	182.7	183.0	172.5	173.2	176.6	176.9	177.4	178.2	178.4
Boston–Brockton–Nashua, MA–NH–ME–CT	1	175.3	–	–	181.6	–	183.2	–	173.3	–	–	180.5	–	182.2	–
Cleveland–Akron, OH	1	162.8	–	–	166.4	–	168.1	–	154.9	–	–	158.9	–	160.4	–
Dallas–Ft Worth, TX	1	158.3	–	–	163.2	–	166.2	–	158.0	–	–	163.1	–	166.2	–
Washington–Baltimore, DC–MD–VA–WV[7]	1	104.6	–	–	106.7	–	108.4	–	104.3	–	–	106.6	–	108.2	–
Atlanta, GA	2	–	165.9	169.8	–	171.1	–	171.9	–	163.2	167.2	–	168.7	–	169.4
Detroit–Ann Arbor–Flint, MI	2	–	164.2	168.1	–	170.8	–	170.0	–	158.7	162.8	–	165.6	–	164.4
Houston–Galveston–Brazoria, TX	2	–	148.9	152.7	–	154.0	–	154.3	–	147.9	151.3	–	153.0	–	153.0
Miami–Ft. Lauderdale, FL	2	–	162.3	166.9	–	168.0	–	168.4	–	160.0	164.5	–	165.7	–	165.7
Philadelphia–Wilmington–Atlantic City, PA–NJ–DE–MD	2	–	173.1	175.7	–	176.4	–	177.4	–	172.6	175.7	–	176.0	–	177.0
San Francisco–Oakland–San Jose, CA	2	–	173.5	178.6	–	179.0	–	181.7	–	170.0	174.8	–	175.2	–	177.7
Seattle–Tacoma–Bremerton, WA	2	–	173.4	177.7	–	179.1	–	180.2	–	168.8	173.2	–	174.4	–	175.3

[1] Foods, fuels, and several other items priced every month in all areas; most other goods and services priced as indicated:
M—Every month.
1—January, March, May, July, September, and November.
2—February, April, June, August, October, and December.

[2] Regions defined as the four Census regions.

[3] Indexes on a December 1996 = 100 base.

[4] The "North Central" region has been renamed the "Midwest" region by the Census Bureau. It is composed of the same geographic entities.

[5] Indexes on a December 1986 = 100 base.

[6] In addition, the following metropolitan areas are published semiannually and appear in tables 34 and 39 of the January and July issues of the *CPI Detailed Report*: Anchorage, AK; Cincinnati–Hamilton, OH–KY–IN; Denver–Boulder–Greeley, CO; Honolulu, HI; Kansas City, MO–KS; Milwaukee–Racine, WI; Minneapolis–St. Paul, MN–WI; Pittsburgh, PA; Portland–Salem, OR–WA; St Louis, MO–IL; San Diego, CA; Tampa–St. Petersburg–Clearwater, FL.

[7] Indexes on a November 1996 = 100 base.

– Data not available.

NOTE: Local area CPI indexes are byproducts of the national CPI program. Each local index has a smaller sample size and is, therefore, subject to substantially more sampling and other measurement error. As a result, local area indexes show greater volatility than the national index, although their long-term trends are similar. Therefore, the Bureau of Labor Statistics strongly urges users to consider adopting the national average CPI for use in their escalator clauses. Index applies to a month as a whole, not to any specific date.

30. Annual data: Consumer Price Index, U.S. city average, all items and major groups

[1982–84 = 100]

Series	1991	1992	1993	1994	1995	1996	1997	1998	1999
Consumer Price Index for All Urban Consumers:									
All items:									
Index	136.2	140.3	144.5	148.2	152.4	156.9	160.5	163.0	166.6
Percent change	4.2	3.0	3.0	2.6	2.8	3.0	2.3	1.6	2.2
Food and beverages:									
Index	136.8	138.7	141.6	144.9	148.9	153.7	157.7	161.1	164.6
Percent change	3.6	1.4	2.1	2.3	2.8	3.2	2.6	2.2	2.2
Housing:									
Index	133.6	137.5	141.2	144.8	148.5	152.8	156.8	160.4	163.9
Percent change	4.0	2.9	2.7	2.5	2.6	2.9	2.6	2.3	2.2
Apparel:									
Index	128.7	131.9	133.7	133.4	132.0	131.7	132.9	133.0	131.3
Percent change	3.7	2.5	1.4	–.2	–1.0	–.2	.9	.1	–1.3
Transportation:									
Index	123.8	126.5	130.4	134.3	139.1	143.0	144.3	141.6	144.4
Percent change	2.7	2.2	3.1	3.0	3.6	2.8	0.9	–1.9	2.0
Medical care:									
Index	177.0	190.1	201.4	211.0	220.5	228.2	234.6	242.1	250.6
Percent change	8.7	7.4	5.9	4.8	4.5	3.5	2.8	3.2	3.5
Other goods and services:									
Index	171.6	183.3	192.9	198.5	206.9	215.4	224.8	237.7	258.3
Percent change	7.9	6.8	5.2	2.9	4.2	4.1	4.4	5.7	8.7
Consumer Price Index for Urban Wage Earners and Clerical Workers:									
All items:									
Index	134.3	138.2	142.1	145.6	149.8	154.1	157.6	159.7	163.2
Percent change	4.1	2.9	2.8	2.5	2.9	2.9	2.3	1.3	2.2

31. Producer Price Indexes, by stage of processing

[1982 = 100]

Grouping	Annual average		1999					2000							
	1998	1999	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.
Finished goods	130.7	133.0	133.7	134.7	135.1	134.9	134.9	134.7	136.0	136.8	136.7	137.5	138.4	138.3	138.1
Finished consumer goods	128.9	132.0	133.2	134.6	134.5	134.3	134.3	133.9	135.7	136.7	136.5	137.6	138.8	138.6	138.5
Finished consumer foods	134.3	135.1	135.9	136.7	135.8	135.4	135.6	135.0	136.0	136.0	137.3	138.0	137.3	137.4	136.9
Finshed consumer goods excluding foods	126.4	130.5	131.9	133.5	133.7	133.6	133.6	133.3	135.4	136.8	136.0	137.2	139.2	139.0	139.0
Nondurable goods less food	122.2	127.9	130.4	132.8	131.5	131.6	131.7	131.4	134.3	136.4	135.3	136.9	139.9	139.7	139.9
Durable goods	132.9	133.0	131.6	131.2	134.9	134.6	134.4	134.1	133.9	133.8	133.9	134.0	133.6	133.2	132.7
Capital equipment	137.6	137.6	136.9	136.7	138.5	138.3	138.3	138.4	138.5	138.5	138.5	138.7	138.5	138.6	138.4
Intermediate materials, supplies, and components	123.0	123.2	124.6	125.3	125.0	125.2	125.4	125.9	126.9	127.8	128.0	128.3	129.7	130.1	129.9
Materials and components for manufacturing	126.1	124.6	125.0	125.4	125.9	125.9	125.9	126.4	127.0	127.6	128.2	128.4	128.6	129.0	128.6
Materials for food manufacturing	123.2	120.8	121.1	122.0	122.2	120.9	118.2	117.6	117.5	118.1	119.6	120.6	120.7	120.5	119.1
Materials for nondurable manufacturing	126.7	124.9	125.5	126.5	127.7	127.8	128.2	128.6	129.7	131.3	132.3	133.2	133.9	135.0	134.2
Materials for durable manufacturing	128.0	125.1	126.2	126.2	126.5	126.7	127.2	128.6	129.6	129.7	130.0	129.6	129.3	129.3	129.1
Components for manufacturing	125.9	125.7	125.6	125.7	125.7	125.7	125.8	125.9	125.9	126.0	126.1	126.0	126.1	126.2	126.2
Materials and components for construction	146.8	148.9	150.4	149.6	149.1	149.4	149.8	150.4	150.8	151.3	151.6	151.1	150.9	150.5	150.3
Processed fuels and lubricants	81.1	84.6	90.0	92.5	89.3	90.2	90.6	91.5	94.8	97.4	95.7	96.7	103.2	103.9	104.6
Containers	140.8	142.5	143.6	145.7	146.3	146.5	146.5	147.2	147.2	148.1	151.6	152.8	153.3	153.3	153.1
Supplies	134.8	134.2	134.2	134.4	134.8	135.0	135.1	135.2	135.6	136.0	136.4	136.6	137.1	137.3	136.9
Crude materials for further processing	96.8	98.2	103.1	107.3	104.0	109.2	103.5	105.8	110.3	112.9	111.3	115.4	121.9	120.8	119.2
Foodstuffs and feedstuffs	103.9	98.7	100.1	100.1	98.8	99.5	96.9	96.5	97.6	101.4	103.4	104.6	101.8	99.4	95.4
Crude nonfood materials	88.4	94.3	101.5	108.3	103.8	111.9	104.3	108.3	115.1	116.7	112.7	118.6	131.4	131.1	131.2
Special groupings:															
Finished goods, excluding foods	129.5	132.3	133.0	134.0	134.7	134.7	134.6	134.5	135.9	136.9	136.4	137.2	138.6	138.4	138.4
Finished energy goods	75.1	78.8	83.5	85.8	83.5	83.6	83.6	83.8	87.5	90.9	89.2	91.5	97.0	96.2	96.3
Finished goods less energy	141.1	143.0	142.5	143.1	144.2	144.0	144.0	143.6	144.3	144.3	144.6	145.0	144.6	144.7	144.5
Finished consumer goods less energy	142.5	145.2	144.9	145.8	146.6	146.3	146.4	145.8	146.7	146.7	147.2	147.6	147.1	147.2	147.0
Finished goods less food and energy	143.7	146.1	145.2	145.7	147.5	147.4	147.4	147.0	147.5	147.5	147.5	147.8	147.5	147.5	147.4
Finished consumer goods less food and energy	147.7	151.7	150.7	151.7	153.6	153.4	153.4	152.8	153.6	153.6	153.5	153.8	153.4	153.5	153.4
Consumer nondurable goods less food and energy	159.1	166.3	165.7	167.9	168.1	168.2	168.2	167.3	169.0	169.1	168.9	169.4	169.0	169.4	169.8
Intermediate materials less foods and feeds	123.4	123.9	125.4	126.0	125.7	126.0	126.2	126.8	127.8	128.8	128.9	129.2	130.7	131.0	131.0
Intermediate foods and feeds	116.2	111.1	110.9	111.8	112.4	111.6	109.7	109.3	110.0	111.0	111.9	113.2	113.5	112.7	110.2
Intermediate energy goods	80.8	84.6	89.6	92.1	89.0	89.9	90.3	91.2	94.5	97.1	95.4	96.5	102.9	103.6	104.3
Intermediate goods less energy	132.4	131.7	132.3	132.5	132.9	133.0	133.0	133.5	133.9	134.5	135.1	135.2	135.5	135.7	135.3
Intermediate materials less foods and energy	133.5	133.1	133.7	133.9	134.2	134.4	134.6	135.1	135.5	136.1	136.6	136.7	136.9	137.2	137.0
Crude energy materials	68.6	78.5	87.3	95.4	88.7	98.9	87.9	92.0	100.2	102.5	97.9	105.8	122.9	123.4	124.2
Crude materials less energy	113.6	107.9	109.4	110.0	109.8	110.5	109.5	110.2	111.5	114.1	115.1	115.8	113.3	110.9	107.4
Crude nonfood materials less energy	142.1	135.2	136.8	139.1	141.7	142.6	146.0	149.8	151.3	150.9	149.2	148.5	146.8	144.2	142.3

32. Producer Price Indexes for the net output of major industry groups

[December 1984 = 100, unless otherwise indicated]

SIC	Industry	Annual average		1999					2000							
		1998	1999	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.
–	**Total mining industries**	70.8	78.0	84.7	91.5	87.7	95.1	86.7	89.5	95.8	98.9	95.7	100.0	113.8	114.8	115.4
10	Metal mining	73.2	70.3	69.3	70.4	76.3	73.4	72.6	73.9	75.3	73.3	71.8	71.7	73.7	72.8	72.8
12	Coal mining (12/85 = 100)	89.5	87.3	86.9	85.9	86.0	86.1	85.4	85.3	84.7	84.8	85.9	86.0	85.0	85.4	83.5
13	Oil and gas extraction (12/85 = 100)	68.3	78.5	87.6	96.9	91.2	101.6	90.4	94.2	102.6	107.0	102.7	108.3	127.1	128.3	129.6
14	Mining and quarrying of nonmetallic minerals, except fuels	132.2	134.0	134.2	134.3	134.4	134.4	134.4	135.0	135.3	135.7	136.7	137.5	136.8	138.4	137.9
–	**Total manufacturing industries**	126.2	128.3	129.0	129.7	130.2	130.3	130.5	130.8	132.2	132.9	132.6	133.4	134.0	133.6	133.4
20	Food and kindred products	126.3	126.3	126.8	127.5	127.5	127.1	126.7	126.7	127.2	127.4	128.1	129.1	129.1	129.3	128.2
21	Tobacco manufactures	243.1	325.7	316.5	344.5	344.4	344.5	345.0	329.4	348.6	347.3	341.8	347.1	342.2	342.3	350.5
22	Textile mill products	118.6	116.3	116.0	115.9	116.1	115.9	116.1	116.2	116.4	116.5	116.5	116.3	116.2	116.8	116.8
23	Apparel and other finished products made from fabrics and similar materials	124.8	125.3	125.5	125.6	125.6	125.4	125.3	125.2	125.2	125.6	125.7	125.6	125.5	125.8	125.6
24	Lumber and wood products, except furniture	157.0	161.8	166.9	163.1	160.0	159.6	160.6	161.4	161.6	162.1	161.7	159.0	158.4	157.2	155.8
25	Furniture and fixtures	139.7	141.3	141.6	141.8	142.0	142.0	142.1	142.4	142.5	143.0	143.2	143.3	143.5	143.7	143.6
26	Paper and allied products	136.2	136.4	137.3	138.7	139.9	140.2	140.4	141.0	141.5	143.2	145.4	146.9	147.2	147.3	147.3
27	Printing, publishing, and allied industries	174.0	177.6	177.7	178.1	178.6	179.1	179.2	180.4	180.8	181.1	182.0	181.7	182.9	183.0	183.1
28	Chemicals and allied products	148.7	149.7	150.0	151.0	152.8	153.0	152.9	153.6	154.5	155.2	155.5	156.9	157.1	158.0	157.5
29	Petroleum refining and related products	66.3	76.8	85.3	90.2	87.0	89.5	91.8	94.0	104.1	111.0	105.6	111.4	118.0	112.6	112.8
30	Rubber and miscellaneous plastics products	122.1	122.2	122.5	122.8	122.9	123.3	123.4	123.5	123.5	123.5	123.7	123.3	123.9	124.8	125.0
31	Leather and leather products	137.1	136.5	136.7	136.9	137.0	137.0	137.0	137.5	137.5	137.4	137.6	137.5	137.4	137.5	138.0
32	Stone, clay, glass, and concrete products	129.3	132.6	133.1	133.2	133.6	133.7	133.5	134.4	134.6	134.7	135.0	134.8	134.9	134.9	134.6
33	Primary metal industries	120.9	115.8	115.7	116.4	117.1	117.1	117.4	118.6	119.5	120.0	120.3	120.5	120.1	119.9	120.1
34	Fabricated metal products, except machinery and transportation transportation equipment	128.7	129.1	129.1	129.2	129.4	129.6	129.7	129.9	130.0	130.3	130.4	130.3	130.3	130.3	130.4
35	Machinery, except electrical	117.7	117.3	117.2	117.1	117.1	117.1	117.0	117.1	117.3	117.4	117.4	117.5	117.5	117.6	117.5
36	Electrical and electronic machinery, equipment, and supplies	110.4	109.5	109.5	109.2	109.1	109.1	108.9	108.7	108.6	108.6	108.6	108.6	108.6	108.6	108.1
37	Transportation	133.6	134.5	132.9	132.6	136.7	136.2	136.2	136.3	136.5	136.4	136.5	136.1	136.0	136.0	135.6
38	Measuring and controlling instruments; photographic, medical, and optical goods; watches and clocks	126.0	125.7	125.0	124.9	125.2	125.3	125.6	126.0	126.2	126.0	126.0	126.3	126.5	126.5	126.6
39	Miscellaneous manufacturing industries industries (12/85 = 100)	129.7	130.3	130.1	130.0	130.4	130.2	130.5	130.7	131.1	130.8	130.9	131.3	131.3	131.0	131.1
	Service industries:															
42	Motor freight transportation and warehousing (06/93 = 100)	111.6	114.8	115.1	115.8	115.5	115.5	115.8	116.5	117.0	118.1	118.2	118.8	119.4	118.8	120.1
43	U.S. Postal Service (06/89 = 100)	132.3	135.3	135.2	135.2	135.2	135.2	135.2	135.2	135.2	135.2	135.2	135.2	135.2	135.2	135.2
44	Water transportation (12/92 = 100)	105.6	113.0	117.2	117.3	116.7	116.7	116.1	116.4	117.0	117.8	118.6	119.8	123.2	124.8	128.1
45	Transportation by air (12/92 = 100)	124.5	130.8	131.7	131.8	133.1	133.4	134.2	141.0	141.6	144.3	145.4	149.6	147.5	147.6	148.3
46	Pipelines, except natural gas (12/92 = 100)	99.2	98.3	98.2	98.3	98.3	98.2	98.2	102.1	101.9	101.9	101.9	101.9	102.0	102.5	102.5

33. Annual data: Producer Price Indexes, by stage of processing

[1982 = 100]

Index	1991	1992	1993	1994	1995	1996	1997	1998	1999
Finished goods									
Total	121.7	123.2	124.7	125.5	127.9	131.3	131.8	130.7	133.0
Foods	124.1	123.3	125.7	126.8	129.0	133.6	134.5	134.3	135.1
Energy	78.1	77.8	78.0	77.0	78.1	83.2	83.4	75.1	78.8
Other	131.1	134.2	135.8	137.1	140.0	142.0	142.4	143.7	146.1
Intermediate materials, supplies, and components									
Total	114.4	114.7	116.2	118.5	124.9	125.7	125.6	123.0	123.2
Foods	115.3	113.9	115.6	118.5	119.5	125.3	123.2	123.2	120.8
Energy	85.1	84.3	84.6	83.0	84.1	89.8	89.0	80.8	84.3
Other	121.4	122.0	123.8	127.1	135.2	134.0	134.2	133.5	133.1
Crude materials for further processing									
Total	101.2	100.4	102.4	101.8	102.7	113.8	111.1	96.8	98.2
Foods	105.5	105.1	108.4	106.5	105.8	121.5	112.2	103.9	98.7
Energy	80.4	78.8	76.7	72.1	69.4	85.0	87.3	68.6	78.5
Other	97.5	94.2	94.1	97.0	105.8	105.7	103.5	84.5	91.1

34. U.S. export price indexes by Standard International Trade Classification

[1995 = 100, unless otherwise indicated]

SITC Rev. 3	Industry	1999					2000							
		Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.
0	**Food and live animals**	87.6	86.6	86.4	86.3	85.6	86.3	86.9	86.8	87.5	88.3	87.5	85.8	83.2
01	Meat and meat preparations	97.3	97.5	97.4	97.7	100.9	100.1	98.0	99.4	102.2	105.1	109.5	108.4	104.1
04	Cereals and cereal preparations	73.3	72.7	69.5	70.1	68.5	71.0	74.1	74.4	74.0	75.0	71.6	66.8	64.0
05	Vegetables, fruit, and nuts, prepared fresh or dry	97.8	94.3	96.6	94.3	91.2	90.9	89.0	88.6	90.6	90.1	87.8	91.2	88.5
2	**Crude materials, inedible, except fuels**	76.5	77.7	78.1	77.8	78.9	80.0	82.2	83.2	84.2	85.2	84.4	82.9	82.5
21	Hides, skins, and furskins, raw	83.4	86.5	88.6	87.8	90.5	91.1	89.5	87.7	85.5	86.5	86.7	89.7	95.4
22	Oilseeds and oleaginous fruits	80.1	85.0	82.3	78.1	79.6	80.5	84.8	86.0	88.3	89.1	86.3	80.3	78.0
24	Cork and wood	83.0	82.8	83.5	83.8	85.0	86.4	86.5	87.2	87.4	86.7	86.7	86.5	87.7
25	Pulp and waste paper	73.5	75.2	77.1	78.7	80.9	84.3	88.3	90.0	93.8	99.0	97.6	95.9	90.7
26	Textile fibers and their waste	65.1	64.4	64.5	63.4	62.5	61.2	65.7	68.6	68.9	69.0	69.6	67.7	70.1
27	Crude fertilizers and crude minerals	93.0	93.3	93.1	93.8	94.1	94.3	94.0	93.5	93.0	93.0	93.3	93.3	93.1
28	Metalliferous ores and metal scrap	73.0	73.5	75.1	77.3	78.4	80.0	80.7	80.9	80.4	79.6	78.2	78.0	78.8
3	**Mineral fuels, lubricants, and related products**	113.8	115.3	119.5	121.4	126.6	129.5	138.5	152.1	137.2	142.3	144.9	151.3	147.7
32	Coal, coke, and briquettes	98.3	97.6	97.6	97.6	97.5	96.1	96.1	96.1	94.7	94.5	93.8	93.8	93.1
33	Petroleum, petroleum products, and related materials	126.4	128.6	131.3	133.4	140.1	143.6	159.6	179.2	152.0	163.1	168.2	178.4	172.5
4	**Animal and vegetable oils, fats, and waxes**	77.1	78.8	81.9	79.0	78.0	75.8	74.3	70.8	71.6	70.1	67.1	64.6	63.2
5	**Chemicals and related products, n.e.s.**	91.8	92.3	93.3	93.3	93.6	93.8	94.2	94.4	95.8	95.8	95.5	95.3	94.6
54	Medicinal and pharmaceutical products	99.9	99.8	99.8	99.8	100.3	100.2	100.4	100.2	99.9	100.0	99.7	100.4	100.3
55	Essential oils; polishing and cleaning preparations	101.8	102.1	102.3	103.5	103.4	103.4	103.3	103.0	103.2	103.1	102.9	103.0	103.0
57	Plastics in primary forms (12/92 = 100)	90.6	92.1	94.4	94.9	95.0	94.8	94.8	95.5	97.7	98.4	98.1	97.0	95.4
58	Plastics in nonprimary forms (12/92 = 100)	97.4	97.6	97.9	97.8	98.0	97.8	98.6	100.1	100.2	99.8	99.3	99.4	99.4
59	Chemical materials and products, n.e.s.	99.3	99.2	98.9	98.8	99.1	99.2	99.9	99.6	99.4	99.3	99.1	99.3	99.2
6	**Manufactured goods classified chiefly by materials**	97.3	97.5	97.8	98.0	98.3	98.3	99.0	99.7	99.9	100.1	100.4	100.6	101.0
62	Rubber manufactures, n.e.s.	105.8	106.9	108.2	108.2	108.5	104.7	103.7	103.6	103.7	104.6	104.4	104.8	104.7
64	Paper, paperboard, and articles of paper, pulp, and paperboard	85.4	86.3	87.2	87.6	87.2	87.6	87.8	88.4	89.1	90.5	89.8	90.2	90.3
66	Nonmetallic mineral manufactures, n.e.s.	106.3	106.1	106.0	106.0	105.8	105.8	106.0	106.2	106.4	106.4	106.5	106.3	106.3
68	Nonferrous metals	87.0	88.0	90.2	90.7	92.3	93.4	98.8	101.9	100.3	98.1	100.1	102.3	105.6
7	**Machinery and transport equipment**	97.3	97.2	97.4	97.5	97.2	97.4	97.3	97.3	97.3	97 4	97.3	97.3	97.3
71	Power generating machinery and equipment	110.1	110.1	110.2	111.0	111.0	111.8	111.8	111.8	111.9	112.0	112.0	112.2	112.2
72	Machinery specialized for particular industries	105.8	105.9	106.0	106.1	104.7	106.2	106.3	106.1	106.2	106.2	106.5	106.5	106.5
74	General industrial machines and parts, n.e.s., and machine parts	107.5	107.6	107.7	107.7	107.9	107.5	107.6	108.0	108.2	108.2	108.2	108.3	108.3
75	Computer equipment and office machines	71.0	70.2	70.5	70.4	70.2	70.1	68.7	68.7	68.5	68.5	68.2	68.1	67.6
76	Telecommunications and sound recording and reproducing apparatus and equipment	96.9	96.9	96.6	96.6	96.7	96.4	97.0	96.6	96.4	97.0	96.9	96.7	96.6
77	Electrical machinery and equipment	87.5	87.6	87.4	87.3	86.7	86.4	86.6	86.3	86.4	86.3	85.7	85.6	85.7
78	Road vehicles	102.3	102.4	103.1	103.1	103.1	103.5	103.6	104.0	103.9	103.9	103.9	103.9	103.9
87	**Professional, scientific, and controlling instruments and apparatus**	105.4	105.4	105.5	105.6	105.3	105.2	105.4	105.7	105.7	105.7	105.8	106.4	106.4

35. U.S. import price indexes by Standard International Trade Classification

[1995 = 100, unless otherwise indicated]

SITC Rev. 3	Industry	1999					2000							
		Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.
0	**Food and live animals**	92.0	91.5	91.0	92.4	94.7	93.7	93.6	93.1	94.0	92.3	91.3	91.4	91.6
01	Meat and meat preparations	96.7	99.4	98.4	97.7	98.4	97.8	98.2	99.1	100.2	100.2	99.1	98.1	98.9
03	Fish and crustaceans, mollusks, and other aquatic invertebrates	103.8	103.1	105.0	107.5	106.8	106.8	107.9	108.0	111.0	109.6	109.1	110.5	113.1
05	Vegetables, fruit, and nuts, prepared fresh or dry	102.6	101.6	96.5	97.2	103.6	102.0	102.1	101.2	100.7	96.8	95.7	97.2	97.5
07	Coffee, tea, cocoa, spices, and manufactures thereof	63.2	61.4	62.0	66.0	70.6	67.2	64.7	61.0	61.1	59.8	59.5	56.8	55.8
1	**Beverages and tobacco**	111.2	112.2	111.5	111.5	112.0	111.2	111.4	111.7	111.9	112.4	113.0	112.5	114.5
11	Beverages	107.7	109.1	108.5	108.5	108.7	107.9	108.2	108.5	108.7	109.4	110.1	109.4	111.7
2	**Crude materials, inedible, except fuels**	92.7	91.7	90.8	90.3	92.2	93.6	94.7	94.3	93.8	91.9	90.7	90.7	89.6
24	Cork and wood	128.9	121.7	116.7	114.9	118.7	117.7	117.0	118.6	117.6	112.9	110.1	107.0	102.1
25	Pulp and waste paper	61.1	66.0	63.9	66.8	68.2	70.5	72.0	72.4	75.1	77.0	80.1	80.7	81.4
28	Metalliferous ores and metal scrap	93.8	94.3	98.4	98.0	99.0	101.4	105.7	104.0	101.7	99.6	100.7	101.3	102.2
29	Crude animal and vegetable materials, n.e.s.	105.0	111.1	112.1	106.5	111.9	121.1	124.3	111.9	110.1	106.7	92.7	101.8	101.3
3	**Mineral fuels, lubricants, and related products**	117.1	126.5	128.0	134.7	141.2	145.2	165.7	165.4	148.5	154.3	172.0	170.4	171.2
33	Petroleum, petroleum products, and related materials	115.9	125.7	127.4	132.6	141.4	146.1	167.9	166.6	147.1	154.2	171.0	168.2	168.1
34	Gas, natural and manufactured	134.1	142.2	141.1	161.5	150.2	147.8	161.4	170.5	171.5	167.5	195.4	203.1	212.1
5	**Chemicals and related products, n.e.s.**	90.4	91.3	91.8	92.1	92.0	92.2	92.7	92.8	93.4	94.3	94.1	95.5	95.5
52	Inorganic chemicals	86.2	86.6	87.2	87.7	88.0	88.3	89.0	88.8	89.8	90.7	91.5	92.5	92.6
53	Dying, tanning, and coloring materials	90.5	90.2	90.6	91.4	89.7	88.9	89.3	88.4	88.0	87.4	86.1	87.6	89.1
54	Medicinal and pharmaceutical products	96.3	97.0	97.4	97.8	97.3	98.2	98.2	97.3	97.3	97.3	96.8	97.5	97.3
55	Essential oils; polishing and cleaning preparations	91.8	92.3	91.8	92.3	90.2	89.6	89.6	89.7	89.4	89.9	89.6	89.9	89.3
57	Plastics in primary forms (12/92 = 100)	93.1	93.8	93.8	93.9	94.0	93.7	93.0	93.9	93.9	94.0	94.3	95.5	95.4
58	Plastics in nonprimary forms (12/92 = 100)	76.1	77.9	78.9	79.4	79.7	79.3	79.0	80.4	80.3	80.8	80.8	81.5	80.9
59	Chemical materials and products, n.e.s.	98.1	98.1	98.6	98.4	99.5	100.0	101.6	100.6	100.0	100.9	99.7	100.2	100.3
6	**Manufactured goods classified chiefly by materials**	92.4	92.6	93.3	93.9	93.9	94.5	95.5	98.0	97.5	97.1	97.6	98.0	98.8
62	Rubber manufactures, n.e.s.	94.5	95.0	94.9	94.4	94.4	92.7	92.8	92.3	92.4	92.5	91.8	92.1	91.9
64	Paper, paperboard, and articles of paper, pulp, and paperboard	83.5	83.7	84.4	87.4	86.2	86.6	86.9	87.1	88.8	89.6	89.1	89.5	89.4
66	Nonmetallic mineral manufactures, n.e.s.	100.9	101.1	101.2	101.6	101.2	100.8	101.2	100.8	100.9	100.7	100.5	100.9	101.0
68	Nonferrous metals	89.9	91.1	94.8	95.4	95.6	98.9	104.4	115.1	110.3	106.9	110.7	112.5	118.6
69	Manufactures of metals, n.e.s.	95.6	95.8	95.6	95.9	95.9	95.7	96.1	96.1	95.9	95.9	95.7	95.8	95.7
7	**Machinery and transport equipment**	89.9	89.9	89.9	89.8	89.7	89.8	89.8	89.6	89.7	89.8	89.6	89.6	89.5
72	Machinery specialized for particular industries	97.2	97.6	97.8	98.2	97.8	97.7	97.9	97.3	97.1	97.0	96.1	96.7	96.6
74	General industrial machines and parts, n.e.s., and machine parts	97.3	97.4	97.3	97.3	97.0	97.0	96.7	97.0	96.9	96.7	96.2	96.7	96.4
75	Computer equipment and office machines	61.8	61.6	61.4	61.4	61.7	61.5	61.4	61.0	60.5	60.2	60.0	59.9	59.9
76	Telecommunications and sound recording and reproducing apparatus and equipment	87.0	87.1	86.0	85.9	85.6	85.2	85.2	84.9	84.5	84.7	84.6	84.2	84.2
77	Electrical machinery and equipment	82.1	82.5	82.6	82.2	82.1	82.4	82.2	82.2	83.0	83.5	83.3	82.9	82.8
78	Road vehicles	102.4	102.2	102.4	102.4	102.3	102.4	102.6	102.6	102.7	102.7	102.8	102.8	102.7
85	Footwear	100.6	100.8	100.8	100.8	100.8	100.8	100.9	100.7	100.5	100.7	100.3	100.9	101.0
88	Photographic apparatus, equipment, and supplies, and optical goods, n.e.s.	91.1	91.4	92.2	92.5	92.5	92.2	91.7	91.8	91.8	91.9	91.6	92.5	92.1

36. U.S. export price indexes by end-use category

[1995 = 100]

Category	1999					2000							
	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.
ALL COMMODITIES	94.7	94.8	95.1	95.3	95.2	95.4	95.8	96.3	96.2	96.4	96.3	96.3	96.0
Foods, feeds, and beverages	87.9	87.6	87.4	86.7	86.0	86.3	87.2	87.1	87.8	88.3	87.1	85.1	82.8
Agricultural foods, feeds, and beverages	86.9	86.7	86.4	85.6	84.9	85.4	86.0	86.2	87.1	87.7	86.2	84.0	81.3
Nonagricultural (fish, beverages) food products	99.5	98.2	99.7	99.2	99.5	98.3	100.9	97.8	97.0	96.6	98.1	97.9	99.7
Industrial supplies and materials	89.0	89.5	90.4	91.1	91.7	92.1	93.6	95.2	94.6	95.2	95.2	95.6	95.4
Agricultural industrial supplies and materials	76.3	76.6	77.5	76.6	76.7	75.2	76.9	77.7	78.2	78.2	78.2	77.9	80.3
Fuels and lubricants	110.5	111.8	114.4	115.9	120.4	122.7	131.3	143.6	127.8	132.9	135.6	141.2	137.9
Nonagricultural supplies and materials, excluding fuel and building materials	87.0	87.5	88.3	89.1	89.3	89.7	90.4	91.0	91.9	92.1	91.9	91.9	91.6
Selected building materials	88.4	87.4	87.8	87.7	88.6	89.2	89.5	90.1	90.4	90.0	89.9	89.6	90.5
Capital goods	96.2	96.1	96.2	96.3	96.0	96.1	96.0	96.0	96.1	96.1	96.1	96.1	96.1
Electric and electrical generating equipment	98.0	98.3	98.3	98.4	98.5	98.3	98.8	98.8	98.7	98.9	99.2	99.0	99.5
Nonelectrical machinery	92.6	92.4	92.4	92.5	92.1	92.1	91.9	91.8	91.9	91.9	91.7	91.6	91.6
Automotive vehicles, parts, and engines	103.2	103.3	104.0	103.9	103.8	103.9	103.8	104.2	104.2	104.2	104.1	104.4	104.4
Consumer goods, excluding automotive	102.0	101.9	102.2	102.2	102.4	102.4	102.5	102.3	102.4	102.4	102.3	102.4	102.4
Nondurables, manufactured	102.0	102.1	102.4	102.5	102.9	102.8	102.6	102.4	102.3	102.4	102.1	102.3	102.3
Durables, manufactured	100.8	100.7	100.8	100.9	100.8	101.0	101.4	101.0	101.3	101.3	101.3	101.5	101.4
Agricultural commodities	84.7	84.6	84.5	83.7	83.1	83.2	84.0	84.4	85.1	85.6	84.4	82.6	80.9
Nonagricultural commodities	95.8	95.9	96.3	96.6	96.6	96.8	97.2	97.6	97.4	97.7	97.6	97.8	97.7

37. U.S. import price indexes by end-use category

[1995 = 100]

Category	1999					2000							
	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.
ALL COMMODITIES	94.3	95.2	95.4	96.2	96.8	97.2	99.2	99.3	97.9	98.3	99.6	99.6	99.8
Foods, feeds, and beverages	92.5	92.3	91.6	93.0	94.8	93.6	93.3	92.5	93.3	91.9	91.1	91.1	91.5
Agricultural foods, feeds, and beverages	87.7	87.6	86.1	87.2	89.8	88.4	87.6	86.6	86.7	85.2	84.1	83.7	83.2
Nonagricultural (fish, beverages) food products	105.0	104.9	106.3	108.2	107.7	107.2	108.1	108.3	110.8	109.8	109.7	110.5	113.4
Industrial supplies and materials	99.9	103.1	104.3	106.9	109.4	111.0	118.6	119.8	114.3	115.9	121.8	121.7	122.4
Fuels and lubricants	116.7	126.0	128.1	134.3	140.7	144.2	164.7	163.7	147.7	153.3	170.6	169.0	170.0
Petroleum and petroleum products	115.6	125.2	127.3	132.5	140.9	145.8	167.5	166.2	147.4	154.0	170.4	167.7	167.8
Paper and paper base stocks	76.9	78.4	78.5	81.8	81.2	82.1	82.8	83.1	85.6	86.8	87.0	87.5	87.6
Materials associated with nondurable supplies and materials	86.9	87.7	88.3	88.8	89.1	89.2	89.7	90.4	91.2	92.1	91.7	92.7	92.8
Selected building materials	118.9	113.4	110.0	108.3	111.1	110.5	110.1	112.1	111.9	109.1	105.0	103.4	100.2
Unfinished metals associated with durable goods	89.0	89.7	93.0	94.4	94.8	97.4	100.3	107.1	104.3	102.0	105.0	106.5	109.5
Nonmetals associated with durable goods	86.7	87.3	87.5	87.5	87.4	87.2	88.0	87.6	87.8	87.8	87.0	87.7	87.5
Capital goods	81.9	82.0	81.9	81.8	81.7	81.7	81.6	81.3	81.4	81.2	80.9	80.9	80.7
Electric and electrical generating equipment	91.2	91.6	91.7	91.8	91.1	91.8	91.8	92.1	93.9	94.2	94.3	94.1	93.7
Nonelectrical machinery	78.7	78.8	78.6	78.5	78.4	78.3	78.2	77.9	77.7	77.5	77.1	77.1	77.0
Automotive vehicles, parts, and engines	101.9	101.9	102.0	102.0	102.0	102.1	102.2	102.2	102.3	102.6	102.7	102.9	102.7
Consumer goods, excluding automotive	97.4	97.7	97.5	97.6	97.5	97.5	97.4	97.1	97.1	97.0	96.5	96.8	96.8
Nondurables, manufactured	100.3	100.8	100.5	100.7	100.6	100.4	100.4	100.3	100.3	100.1	99.5	99.8	100.0
Durables, manufactured	94.1	94.2	94.1	94.2	94.1	94.1	93.8	93.5	93.4	93.4	93.2	93.4	93.2
Nonmanufactured consumer goods	99.1	99.9	100.0	98.8	99.8	101.5	102.0	100.1	100.3	99.7	98.0	99.5	99.2

38. U.S. international price indexes for selected categories of services

[1990 = 100, unless otherwise indicated]

Category	1998	1999				2000		
	Dec.	Mar.	June	Sept.	Dec.	Mar.	June	Sept.
Air freight (inbound) (9/90 = 100)	87.4	88.0	86.2	87.9	90.7	88.9	88.4	88.5
Air freight (outbound) (9/92 = 100)	95.2	92.7	92.8	92.7	91.7	91.7	92.8	92.6
Air passenger fares (U.S. carriers)	103.1	104.5	112.3	114.2	106.8	107.3	113.3	115.5
Air passenger fares (foreign carriers)	101.1	98.9	106.3	108.6	102.2	102.6	107.9	109.1
Ocean liner freight (inbound)	104.2	102.6	133.7	148.0	139.4	136.3	143.0	142.8

39. Indexes of productivity, hourly compensation, and unit costs, quarterly data seasonally adjusted

[1992 = 100]

Item	Quarterly indexes												
	1997			1998				1999				2000	
	II	III	IV	I	II	III	IV	I	II	III	IV	I	II
Business													
Output per hour of all persons	107.3	108.3	108.5	109.7	110.0	110.6	111.6	112.6	112.8	114.2	116.3	116.7	118.6
Compensation per hour	112.3	113.5	115.3	117.1	118.5	120.0	121.4	123.0	124.5	126.1	127.3	128.4	130.4
Real compensation per hour	99.8	100.4	101.5	102.9	103.8	104.7	105.5	106.4	106.9	107.6	107.8	107.7	108.5
Unit labor costs	104.7	104.8	106.3	106.7	107.7	108.5	108.8	109.3	110.4	110.5	109.5	110.0	110.0
Unit nonlabor payments	118.0	118.5	116.8	116.4	115.1	114.6	114.6	115.1	114.1	114.3	116.8	118.2	120.2
Implicit price deflator	109.6	109.9	110.2	110.3	110.5	110.7	110.9	111.4	111.8	111.9	112.2	113.0	113.7
Nonfarm business													
Output per hour of all persons	107.1	108.0	108.1	109.3	109.8	110.3	111.2	112.0	112.1	113.6	115.8	116.3	118.0
Compensation per hour	112.0	113.0	114.7	116.4	117.9	119.4	120.8	122.1	123.6	125.2	126.5	127.8	129.4
Real compensation per hour	99.5	100.0	101.0	102.3	103.2	104.2	104.9	105.7	106.1	106.8	107.2	107.2	107.7
Unit labor costs	104.5	104.7	106.1	106.5	107.5	108.3	108.5	109.0	110.2	110.3	109.3	109.8	109.7
Unit nonlabor payments	118.8	119.5	117.8	117.4	116.3	115.8	115.8	116.7	115.7	116.1	118.6	120.1	122.1
Implicit price deflator	109.7	110.1	110.4	110.5	110.7	111.0	111.2	111.8	112.2	112.4	112.7	113.6	114.2
Nonfinancial corporations													
Output per hour of all employees	109.3	110.8	111.6	112.3	113.4	114.9	115.8	117.1	118.2	119.7	121.5	122.3	123.8
Compensation per hour	111.1	112.1	113.7	115.2	116.6	118.0	119.3	120.9	122.4	124.0	125.3	126.1	127.8
Real compensation per hour	98.7	99.2	100.1	101.2	102.1	103.0	103.7	104.6	105.1	105.8	106.1	105.8	106.3
Total unit costs	101.6	101.1	101.5	102.0	102.3	102.1	102.6	102.5	103.0	103.2	103.0	103.1	103.4
Unit labor costs	101.6	101.2	101.9	102.6	102.8	102.7	103.0	103.2	103.5	103.6	103.1	103.1	103.2
Unit nonlabor costs	101.4	100.8	100.4	100.5	100.9	100.2	101.6	100.7	101.4	102.1	102.5	103.3	103.8
Unit profits	155.3	160.3	156.5	150.4	147.2	151.4	144.5	149.7	147.5	143.3	145.7	150.9	155.7
Unit nonlabor payments	115.1	116.0	114.7	113.2	112.7	113.3	112.5	113.2	113.2	112.6	113.5	115.4	117.0
Implicit price deflator	106.1	106.1	106.1	106.1	106.1	106.2	106.2	106.5	106.7	106.6	106.6	107.2	107.8
Manufacturing													
Output per hour of all persons	116.3	118.7	120.1	121.3	122.7	125.1	126.8	128.9	130.4	131.9	135.1	137.7	139.5
Compensation per hour	110.5	111.5	113.3	115.2	116.6	118.1	119.4	120.7	122.4	124.1	125.5	127.0	128.0
Real compensation per hour	98.1	98.6	99.8	101.2	102.1	103.0	103.7	104.4	105.1	105.9	106.4	106.5	106.5
Unit labor costs	95.0	93.9	94.4	95.0	95.1	94.4	94.1	93.6	93.8	94.1	92.9	92.2	91.7

40. Annual indexes of multifactor productivity and related measures, selected years

[1996 = 100, unless otherwise indicated]

Item	1960	1970	1980	1990	1991	1992	1993	1994	1995	1996	1997	1998
Private business												
Productivity:												
Output per hour of all persons	45.6	63.0	75.8	90.2	91.3	94.8	95.4	96.6	97.3	100.0	102.0	104.8
Output per unit of capital services	110.4	111.1	101.5	99.3	96.1	97.7	98.5	100.3	99.7	100.0	100.5	100.1
Multifactor productivity	65.2	80.0	88.3	95.3	94.4	96.6	97.1	98.1	98.4	100.0	101.1	102.6
Output	27.5	42.0	59.4	83.6	82.6	85.7	88.5	92.8	95.8	100.0	105.2	110.6
Inputs:												
Labor input	54.0	61.0	71.9	89.4	88.3	89.3	91.8	95.6	98.0	100.0	103.7	106.4
Capital services	24.9	37.8	58.6	84.2	86.0	87.7	89.8	92.6	96.0	100.0	104.7	110.4
Combined units of labor and capital input	42.3	52.4	67.3	87.7	87.5	88.8	91.1	94.6	97.3	100.0	104.0	107.7
Capital per hour of all persons	41.3	56.7	74.7	90.8	95.0	97.0	96.8	96.3	97.6	100.0	101.5	104.7
Private nonfarm business												
Productivity:												
Output per hour of all persons	48.7	64.9	77.3	90.3	91.4	94.8	95.3	96.5	97.5	100.0	101.7	104.5
Output per unit of capital services	120.1	118.3	105.7	100.0	96.6	97.9	98.8	100.3	99.9	100.0	100.2	99.8
Multifactor productivity	69.1	82.6	90.5	95.6	94.7	96.6	97.1	98.1	98.6	100.0	100.9	102.4
Output	27.2	41.9	59.6	83.5	82.5	85.5	88.4	92.6	95.8	100.0	105.1	110.6
Inputs:												
Labor input	50.1	59.3	70.7	89.2	88.0	89.0	91.8	95.4	97.8	100.0	103.8	106.6
Capital services	22.6	35.5	56.4	83.5	85.4	87.3	89.5	92.3	95.9	100.0	104.9	110.8
Combined units of labor and capital input	39.3	50.7	65.9	87.3	87.1	88.4	91.0	94.4	97.2	100.0	104.2	108.0
Capital per hour of all persons	40.5	54.8	73.1	90.3	94.7	96.8	96.5	96.3	97.6	100.0	101.5	104.7
Manufacturing (1992 = 100)												
Productivity:												
Output per hour of all persons	41.8	54.2	70.1	92.8	95.0	100.0	101.9	105.0	109.0	112.8	117.1	124.3
Output per unit of capital services	124.3	116.5	100.9	101.6	97.5	100.0	101.1	104.0	105.0	104.5	105.6	106.5
Multifactor productivity	72.7	84.4	86.6	99.3	98.3	100.0	100.4	102.6	105.0	106.1	109.8	113.2
Output	38.5	56.5	75.3	97.3	95.4	100.0	103.3	108.7	113.4	116.9	123.5	130.7
Inputs:												
Hours of all persons	92.0	104.2	107.5	104.8	100.4	100.0	101.4	103.6	104.0	103.7	105.5	105.2
Capital services	30.9	48.5	74.7	95.8	97.9	100.0	102.2	104.5	108.0	111.9	116.9	122.8
Energy	51.3	85.4	92.5	99.9	100.1	100.0	103.7	107.3	109.5	107.0	103.9	109.2
Nonenergy materials	38.2	44.8	75.0	92.5	93.6	100.0	105.7	111.3	112.8	120.4	120.4	127.2
Purchased business services	28.2	48.8	73.7	92.5	92.1	100.0	103.0	105.1	110.0	108.9	114.2	116.8
Combined units of all factor inputs	52.9	67.0	87.0	98.0	97.0	100.0	102.9	106.0	107.9	110.2	112.5	115.5

41. Annual indexes of productivity, hourly compensation, unit costs, and prices, selected years

[1992 = 100]

Item	1960	1970	1980	1989	1990	1991	1993	1994	1995	1996	1997	1998	1999
Business													
Output per hour of all persons	48.8	67.0	80.4	93.9	95.2	96.3	100.5	101.9	102.6	105.4	107.6	110.5	114.0
Compensation per hour	13.7	23.5	54.2	85.8	90.7	95.0	102.5	104.5	106.7	110.1	113.3	119.3	125.2
Real compensation per hour	60.0	78.9	89.5	95.9	96.5	97.5	99.9	99.7	99.3	99.7	100.4	104.3	107.3
Unit labor costs	28.0	35.1	67.4	91.3	95.3	98.7	101.9	102.6	104.1	104.5	105.3	107.9	109.9
Unit nonlabor payments	25.2	31.6	61.5	91.8	93.9	97.0	102.5	106.4	109.4	113.3	117.1	115.2	115.1
Implicit price deflator	27.0	33.9	65.2	91.5	94.8	98.1	102.2	104.0	106.0	107.7	109.7	110.6	111.8
Nonfarm business													
Output per hour of all persons	51.9	68.9	82.0	94.2	95.3	96.4	100.5	101.8	102.8	105.4	107.3	110.2	113.4
Compensation per hour	14.3	23.7	54.6	85.8	90.5	95.0	102.2	104.3	106.6	109.8	112.9	118.6	124.4
Real compensation per hour	62.8	79.5	90.0	95.9	96.3	97.5	99.6	99.5	99.2	99.5	100.0	103.8	106.5
Unit labor costs	27.5	34.4	66.5	91.1	95.0	98.5	101.7	102.5	103.7	104.2	105.1	107.7	109.7
Unit nonlabor payments	24.6	31.3	60.5	91.3	93.6	97.1	103.0	106.9	110.4	113.5	118.0	116.3	116.8
Implicit price deflator	26.5	33.3	64.3	91.2	94.5	98.0	102.2	104.1	106.1	107.6	109.8	110.8	112.3
Nonfinancial corporations													
Output per hour of all employees	55.4	70.4	81.1	94.6	95.4	97.6	100.8	103.2	104.3	107.6	110.2	114.2	119.2
Compensation per hour	15.6	25.3	56.4	86.2	90.8	95.2	102.1	104.3	106.2	109.1	112.0	117.4	123.2
Real compensation per hour	68.3	84.7	93.1	96.3	96.6	97.8	99.6	99.5	98.9	98.8	99.3	102.7	105.5
Total unit costs	26.8	34.8	68.4	92.0	95.9	98.8	101.0	101.1	102.0	101.2	101.4	102.2	102.9
Unit labor costs	28.1	35.9	69.6	91.1	95.2	97.5	101.3	101.0	101.9	101.4	101.6	102.8	103.4
Unit nonlabor costs	23.3	31.9	65.1	94.6	98.0	102.1	100.2	101.3	102.2	100.6	100.8	100.8	101.7
Unit profits	50.2	44.4	68.8	97.3	94.3	93.0	113.2	131.7	139.0	152.2	156.7	148.3	146.5
Unit nonlabor payments	30.2	35.1	66.0	95.3	97.1	99.7	103.5	109.0	111.6	113.8	115.0	112.9	113.1
Implicit price deflator	28.8	35.6	68.4	92.5	95.8	98.3	102.1	103.7	105.1	105.5	106.1	106.1	106.6
Manufacturing													
Output per hour of all persons	41.9	54.3	70.3	90.5	92.9	95.0	102.0	105.2	109.3	113.1	117.6	123.9	131.6
Compensation per hour	14.9	23.7	55.6	86.6	90.8	95.6	102.7	105.6	107.9	109.3	111.4	117.3	123.2
Real compensation per hour	65.2	79.5	91.7	96.8	96.6	98.1	100.2	100.8	100.4	99.0	98.8	102.6	105.5
Unit labor costs	35.5	43.7	79.1	95.8	97.7	100.6	100.7	100.4	98.7	96.6	94.8	94.6	93.6
Unit nonlabor payments	26.8	29.4	80.2	95.4	99.6	98.9	101.0	102.9	107.2	110.1	109.7	104.6	–
Implicit price deflator	30.2	34.9	79.8	95.5	98.9	99.6	100.9	101.9	103.9	104.9	103.9	100.7	–

– Data not available.

42. Annual indexes of output per hour for selected 3-digit SIC industries

[1987 = 100]

Industry	SIC	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
Mining												
Copper ores	102	109.2	106.6	102.7	100.5	115.2	118.1	126.0	117.2	116.5	118.9	117.5
Gold and silver ores	104	101.5	113.3	122.3	127.4	141.6	159.8	160.8	144.2	138.3	159.0	186.3
Bituminous coal and lignite mining	122	111.7	117.3	118.7	122.4	133.0	141.2	148.1	155.9	168.0	176.6	187.3
Crude petroleum and natural gas	131	101.0	98.0	97.0	97.9	102.1	105.9	112.4	119.4	123.9	125.2	128.7
Crushed and broken stone	142	101.3	98.7	102.2	99.8	105.0	103.6	108.7	105.4	107.2	114.0	111.9
Manufacturing												
Meat products	201	100.1	99.2	97.1	99.6	104.6	104.3	101.2	102.3	97.4	103.2	-
Dairy products	202	108.4	107.7	107.3	108.3	111.4	109.6	111.8	116.4	116.0	119.5	-
Preserved fruits and vegetables	203	97.0	97.8	95.6	99.2	100.5	106.8	107.6	109.1	109.2	111.8	-
Grain mill products	204	101.3	107.6	105.4	104.9	107.8	109.2	108.4	115.4	108.0	118.7	-
Bakery products	205	96.8	96.1	92.7	90.6	93.8	94.4	96.4	97.3	95.6	99.3	-
Sugar and confectionery products	206	99.5	101.8	103.2	102.0	99.8	104.5	106.2	108.3	113.8	117.1	-
Fats and oils	207	108.9	116.4	118.1	120.1	114.1	112.6	111.8	120.3	110.1	120.0	-
Beverages	208	106.0	112.7	117.7	120.5	127.6	127.0	130.8	134.3	135.7	136.3	-
Miscellaneous food and kindred products	209	107.0	99.3	99.3	101.6	101.6	105.3	101.0	103.1	109.2	103.9	-
Cigarettes	211	101.2	109.0	113.2	107.6	111.6	106.5	126.6	142.9	147.2	147.2	-
Broadwoven fabric mills, cotton	221	99.6	99.8	103.1	111.2	110.3	117.8	122.1	134.0	137.3	130.9	-
Broadwoven fabric mills, manmade	222	99.2	106.3	111.3	116.2	126.2	131.7	142.5	145.3	147.6	161.9	-
Narrow fabric mills	224	108.4	92.7	96.5	99.6	112.9	111.4	120.1	118.9	126.3	107.7	-
Knitting mills	225	96.3	108.0	107.5	114.1	119.5	128.1	134.3	138.6	150.5	150.2	-
Textile finishing, except wool	226	90.3	88.7	83.4	79.9	78.6	79.3	81.2	78.5	79.2	94.0	-
Carpets and rugs	227	98.6	97.8	93.2	89.2	96.1	97.1	93.3	95.8	100.2	100.3	-
Yarn and thread mills	228	102.1	104.2	110.2	111.4	119.6	126.6	130.7	137.4	147.4	155.5	-
Miscellaneous textile goods	229	101.6	109.1	109.2	104.6	106.5	110.4	118.5	123.7	123.1	117.9	-
Men's and boys' suits and coats	231	105.1	97.7	93.9	90.2	89.0	97.4	97.7	92.5	97.4	130.3	-
Men's and boys' furnishings	232	100.1	100.1	102.1	108.4	109.1	108.4	111.7	123.4	134.7	152.4	-
Women's and misses' outerwear	233	101.4	96.8	104.1	104.3	109.4	121.8	127.4	135.5	141.6	151.5	-
Women's and children's undergarments	234	105.4	94.6	102.1	113.6	117.4	124.5	138.0	161.3	174.5	196.3	-
Hats, caps, and millinery	235	99.0	96.4	89.2	91.1	93.6	87.2	77.7	84.3	82.2	83.5	-
Miscellaneous apparel and accessories	238	101.3	88.4	90.6	91.8	91.3	94.0	105.5	116.8	120.1	105.2	-
Miscellaneous fabricated textile products	239	96.6	95.7	99.9	100.7	107.5	108.5	107.8	109.2	105.6	117.0	-
Logging	241	93.7	89.4	86.3	86.0	96.2	88.6	87.8	86.0	85.4	71.9	-
Sawmills and planing mills	242	100.7	99.6	99.8	102.6	108.1	101.9	103.3	110.2	115.6	117.5	-
Millwork, plywood, and structural members	243	98.8	97.1	98.0	98.0	99.9	97.0	94.5	92.7	92.4	89.9	-
Wood containers	244	103.1	108.8	111.2	113.1	109.4	100.1	100.9	106.1	106.7	106.6	-
Wood buildings and mobile homes	245	97.8	98.8	103.1	103.0	103.1	103.8	98.3	97.0	96.7	101.1	-
Miscellaneous wood products	249	95.9	102.4	107.7	110.5	114.2	115.3	111.8	115.4	114.4	123.1	-
Household furniture	251	99.4	102.0	104.5	107.1	110.5	110.6	112.5	116.9	121.6	121.8	-
Office furniture	252	94.3	97.5	95.0	94.1	102.5	103.2	100.5	101.1	106.4	117.9	-
Public building and related furniture	253	109.6	113.7	119.8	120.2	140.6	161.0	157.4	173.3	181.5	186.5	-
Partitions and fixtures	254	95.7	92.4	95.6	93.0	102.7	107.4	98.9	101.2	97.5	121.4	-
Miscellaneous furniture and fixtures	259	103.6	101.9	103.5	102.1	99.5	103.6	104.7	110.0	113.2	102.2	-
Pulp mills	261	99.6	107.4	116.7	128.3	137.3	122.5	128.9	131.9	132.6	104.4	-
Paper mills	262	103.9	103.6	102.3	99.2	103.3	102.4	110.2	118.6	111.6	107.0	-
Paperboard mills	263	105.5	101.9	100.6	101.4	104.4	108.4	114.9	119.5	118.0	124.2	-
Paperboard containers and boxes	265	99.7	101.5	101.3	103.4	105.2	107.9	108.4	105.1	106.3	110.1	-
Miscellaneous converted paper products	267	101.1	101.6	101.4	105.3	105.5	107.9	110.6	113.3	113.6	121.7	-
Newspapers	271	96.9	95.2	90.6	85.8	81.5	79.4	79.9	79.0	77.4	79.0	-
Periodicals	272	97.9	98.3	93.9	89.5	92.9	89.5	81.9	87.8	89.1	100.1	-
Books	273	99.1	94.1	96.6	100.8	97.7	103.5	103.0	101.6	99.3	102.2	-
Miscellaneous publishing	274	96.7	89.0	92.2	95.9	105.8	104.5	97.5	94.8	93.6	114.5	-
Commercial printing	275	100.0	101.1	102.5	102.0	108.0	106.9	106.5	107.2	108.3	109.2	-
Manifold business forms	276	98.7	89.7	93.0	89.1	94.5	91.1	82.0	76.9	75.2	78.9	-
Greeting cards	277	100.1	109.1	100.6	92.7	96.7	91.4	89.0	92.5	90.8	92.2	-
Blankbooks and bookbinding	278	95.6	94.2	99.4	96.1	103.6	98.7	105.4	108.7	114.5	115.3	-
Printing trade services	279	99.9	94.3	99.3	100.6	112.0	115.3	111.0	116.7	126.2	124.2	-
Industrial inorganic chemicals	281	105.7	104.3	106.8	109.7	109.7	105.6	102.3	109.3	110.1	116.1	-
Plastics materials and synthetics	282	98.8	99.7	100.9	100.0	107.5	112.0	125.3	128.3	125.3	133.8	-
Drugs	283	101.0	102.8	103.8	104.5	99.5	99.9	104.9	108.7	112.1	112.6	-
Soaps, cleaners, and toilet goods	284	102.0	100.6	103.8	105.3	104.4	108.7	111.2	118.6	120.9	130.4	-
Paints and allied products	285	101.4	103.3	106.3	104.3	102.9	108.8	116.7	118.0	125.6	127.2	-

See footnotes at end of table.

42. Continued--Annual indexes of output per hour for selected 3-digit SIC industries

[1987 = 100]

Industry	SIC	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
Industrial organic chemicals	286	109.9	110.4	101.4	95.8	94.6	92.2	99.9	98.6	99.0	112.9	-
Agricultural chemicals	287	103.7	104.3	104.7	99.5	99.5	103.8	105.0	108.5	110.0	120.4	-
Miscellaneous chemical products	289	95.4	95.2	97.3	96.1	101.8	107.1	105.7	107.8	110.1	120.2	-
Petroleum refining	291	105.3	109.6	109.2	106.6	111.3	120.1	123.8	132.3	142.0	149.2	-
Asphalt paving and roofing materials	295	98.3	95.3	98.0	94.1	100.4	108.0	104.9	111.2	113.1	120.8	-
Miscellaneous petroleum and coal products	299	98.4	101.9	94.8	90.6	101.5	104.2	96.3	87.4	87.1	97.2	-
Tires and inner tubes	301	102.9	103.8	103.0	102.4	107.8	116.5	124.1	131.1	138.8	148.5	-
Hose and belting and gaskets and packing	305	103.7	96.3	96.1	92.4	97.8	99.7	102.7	104.6	107.4	112.5	-
Fabricated rubber products, n.e.c.	306	104.2	105.5	109.0	109.9	115.2	123.1	119.1	121.5	121.0	125.4	-
Miscellaneous plastics products, n.e.c.	308	100.5	101.8	105.7	108.2	114.4	116.7	120.7	120.9	124.7	130.1	-
Footwear, except rubber	314	101.3	101.1	101.1	94.4	104.2	105.2	113.0	117.1	126.1	129.5	-
Luggage	316	93.7	104.8	106.2	100.3	90.7	89.5	92.3	90.5	110.6	136.4	-
Handbags and personal leather goods	317	98.5	93.1	96.5	98.7	111.2	97.8	86.8	81.8	83.2	109.7	-
Flat glass	321	91.9	90.7	84.5	83.6	92.7	97.7	97.6	99.6	101.5	107.6	-
Glass and glassware, pressed or blown	322	100.6	100.2	104.8	102.3	108.9	108.7	112.9	115.7	121.4	128.2	-
Products of purchased glass	323	95.9	90.1	92.6	97.7	101.5	106.2	105.9	106.1	122.0	125.3	-
Cement, hydraulic	324	103.2	110.2	112.4	108.3	115.1	119.9	125.6	124.3	128.7	133.1	-
Structural clay products	325	98.8	103.1	109.6	109.8	111.4	106.8	114.0	112.6	119.6	116.1	-
Pottery and related products	326	99.6	97.1	98.6	95.8	99.5	100.3	108.4	109.3	119.3	116.1	-
Concrete, gypsum, and plaster products	327	100.8	102.4	102.3	101.2	102.5	104.6	101.5	104.5	107.3	109.2	-
Miscellaneous nonmetallic mineral products	329	103.0	95.5	95.4	94.0	104.3	104.5	106.3	107.8	110.4	112.7	-
Blast furnace and basic steel products	331	112.6	108.0	109.6	107.8	117.1	133.5	142.4	142.7	155.1	160.9	-
Iron and steel foundries	332	104.0	105.4	106.1	104.5	107.2	112.1	113.0	112.7	116.2	121.7	-
Primary nonferrous metals	333	107.8	106.1	102.3	110.7	101.9	107.9	105.3	111.0	110.8	116.0	-
Nonferrous rolling and drawing	335	95.5	93.6	92.7	91.0	96.0	98.3	101.2	99.2	104.0	112.3	-
Nonferrous foundries (castings)	336	102.6	105.1	104.0	103.6	103.6	108.5	112.1	117.8	122.3	126.4	-
Miscellaneous primary metal products	339	106.6	105.0	113.7	109.1	114.5	111.3	134.5	152.2	149.6	140.9	-
Metal cans and shipping containers	341	106.5	108.5	117.6	122.9	127.8	132.3	140.9	144.2	155.2	160.8	-
Cutlery, handtools, and hardware	342	97.8	101.7	97.3	96.8	100.1	104.0	109.2	111.3	118.2	113.1	-
Plumbing and heating, except electric	343	103.7	101.5	102.6	102.0	98.4	102.0	109.1	109.2	118.6	127.2	-
Fabricated structural metal products	344	100.4	96.9	98.8	100.0	103.9	104.8	107.7	105.8	106.5	110.0	-
Screw machine products, bolts, etc.	345	98.5	96.1	96.1	97.9	102.3	104.4	107.2	109.7	110.2	151.3	-
Metal forgings and stampings	346	101.5	99.8	95.6	92.9	103.7	108.7	108.5	109.3	113.6	120.2	-
Metal services, n.e.c.	347	108.3	102.4	104.7	99.4	111.6	120.6	123.0	127.7	128.4	123.5	-
Ordnance and accessories, n.e.c.	348	97.7	89.8	82.1	81.5	88.6	84.6	83.6	87.6	87.5	100.5	-
Miscellaneous fabricated metal products	349	101.4	95.9	97.5	97.4	101.1	102.0	103.2	106.6	108.3	106.2	-
Engines and turbines	351	106.8	110.7	106.5	105.8	103.3	109.2	122.3	122.7	136.6	134.2	-
Farm and garden machinery	352	106.3	110.7	116.5	112.9	113.9	118.6	125.0	134.7	137.2	141.0	-
Construction and related machinery	353	106.5	108.3	107.0	99.1	102.0	108.2	117.7	122.1	123.3	131.8	-
Metalworking machinery	354	101.0	103.5	101.1	96.4	104.3	107.4	109.9	114.8	114.9	118.6	-
Special industry machinery	355	104.6	108.3	107.5	108.3	106.0	113.6	121.2	132.3	134.0	130.1	-
General industrial machinery	356	105.9	101.5	101.5	101.6	101.6	104.8	106.7	109.0	109.4	110.1	-
Refrigeration and service machinery	358	102.1	106.0	103.6	100.7	104.9	108.6	110.7	112.7	114.7	114.8	-
Industrial machinery, n.e.c.	359	106.5	107.1	107.3	109.0	117.0	118.5	127.4	138.8	141.4	129.7	-
Electric distribution equipment	361	105.4	105.0	106.3	106.5	119.6	122.2	131.8	143.0	143.9	143.9	-
Electrical industrial apparatus	362	104.6	107.4	107.7	107.1	117.1	132.9	134.9	150.8	154.3	163.9	-
Household appliances	363	103.0	104.7	105.8	106.5	115.0	123.4	131.4	127.3	127.4	138.1	-
Electric lighting and wiring equipment	364	101.9	100.2	99.9	97.5	105.7	107.8	113.4	113.7	116.9	121.4	-
Communications equipment	366	110.5	107.2	121.4	124.5	146.7	150.3	166.0	170.9	190.3	221.0	-
Miscellaneous electrical equipment & supplies	369	102.8	99.6	90.6	98.6	101.3	108.2	110.5	114.1	123.1	124.6	-
Motor vehicles and equipment	371	103.2	103.3	102.4	96.6	104.2	106.2	108.8	106.7	107.2	116.5	-
Aircraft and parts	372	100.6	98.2	98.9	108.2	112.4	115.2	109.6	107.8	113.0	114.0	-
Ship and boat building and repairing	373	99.4	97.6	103.7	96.3	102.7	106.2	103.8	98.0	99.2	104.3	-
Railroad equipment	374	113.5	135.3	141.1	146.9	147.9	151.0	152.5	150.0	148.3	183.2	-
Motorcycles, bicycles, and parts	375	92.6	94.6	93.8	99.8	108.4	130.9	125.1	120.3	125.5	120.5	-
Guided missiles, space vehicles, parts	376	104.1	110.6	116.5	110.5	110.5	122.1	118.9	121.0	129.4	126.6	-
Search and navigation equipment	381	104.8	105.8	112.7	118.9	122.1	129.1	132.1	149.5	142.2	148.9	-
Measuring and controlling devices	382	103.9	102.1	107.0	113.9	121.0	125.2	135.0	147.8	151.9	144.3	-
Medical instruments and supplies	384	105.2	107.9	116.9	118.7	123.5	127.3	126.7	131.5	139.8	146.3	-
Ophthalmic goods	385	112.6	123.3	121.2	125.1	144.5	157.8	160.6	167.2	188.2	202.6	-
Photographic equipment & supplies	386	105.6	113.0	107.8	110.2	116.4	126.9	132.7	129.5	128.7	121.6	-

See footnotes at end of table.

42. Continued--Annual indexes of output per hour for selected 3-digit SIC industries

[1987 = 100]

Industry	SIC	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
Jewelry, silverware, and plated ware	391	100.1	102.9	99.3	95.8	96.7	96.7	99.5	100.2	102.6	117.2	-
Musical instruments	393	101.8	96.1	97.1	96.9	96.0	95.6	88.7	86.9	78.8	83.9	-
Toys and sporting goods	394	104.8	106.0	108.1	109.7	104.9	114.2	109.7	113.6	119.9	139.6	-
Pens, pencils, office, and art supplies	395	108.3	112.9	118.2	116.8	111.3	111.6	129.9	135.2	144.1	127.7	-
Costume jewelry and notions	396	102.0	93.8	105.3	106.7	110.8	115.8	129.0	143.7	142.2	119.1	-
Miscellaneous manufactures	399	102.1	100.9	106.5	109.2	109.5	107.7	106.1	108.1	112.8	109.3	-
Transportation												
Trucking, except local [1]	4213	105.2	109.3	111.1	116.9	123.4	126.6	129.5	125.4	130.9	132.4	130.1
U.S. postal service [2]	431	99.9	99.7	104.0	103.7	104.5	107.1	106.6	106.5	104.7	108.3	109.5
Air transportation [1]	4512,13,22 (pts.)	99.5	95.8	92.9	92.5	96.9	100.2	105.7	108.6	111.6	111.1	108.5
Utilities												
Telephone communications	481	106.2	111.6	113.3	119.8	127.7	135.5	142.2	148.1	159.5	160.9	171.2
Radio and television broadcasting	483	103.1	106.2	104.9	106.1	108.3	106.7	110.1	109.6	105.8	101.1	100.8
Cable and other pay TV services	484	102.0	99.7	92.5	87.5	88.3	86.7	85.6	86.7	84.4	87.6	88.0
Electric utilities	491,3 (pt.)	104.9	107.7	110.1	113.4	115.2	120.6	126.8	135.0	150.5	146.5	157.2
Gas utilities	492,3 (pt.)	108.3	111.2	105.8	109.6	111.1	121.8	125.6	137.1	158.6	145.9	153.4
Trade												
Lumber and other building materials dealers	521	101.0	99.1	103.6	101.3	105.4	110.5	118.3	117.6	121.7	122.2	133.0
Paint, glass, and wallpaper stores	523	102.8	101.7	106.0	99.4	106.5	114.7	130.2	135.3	140.2	143.8	166.0
Hardware stores	525	108.6	115.2	110.5	102.5	107.2	105.8	112.7	108.5	112.1	111.2	125.3
Retail nurseries, lawn and garden supply stores	526	106.7	103.4	83.9	88.5	100.4	106.6	116.6	117.2	136.6	128.1	136.1
Department stores	531	99.2	97.0	94.2	98.2	100.9	105.7	108.6	110.9	118.4	123.5	129.4
Variety stores	533	101.9	124.4	151.2	154.2	167.7	184.7	190.1	203.2	229.2	247.6	262.5
Miscellaneous general merchandise stores	539	100.8	109.8	116.4	121.8	136.1	159.7	160.9	163.9	164.9	168.2	189.9
Grocery stores	541	98.9	95.4	94.6	93.7	93.3	92.8	92.5	91.2	89.4	89.2	90.2
Meat and fish (seafood) markets	542	99.0	97.6	96.8	88.4	95.8	93.7	91.1	89.1	81.1	84.7	89.9
Retail bakeries	546	89.8	83.3	89.7	94.7	94.0	86.5	87.2	86.8	81.7	75.4	65.0
New and used car dealers	551	103.4	102.5	106.1	104.1	106.5	107.6	108.7	107.1	108.2	107.8	108.0
Auto and home supply stores	553	103.2	101.6	102.7	99.0	100.0	98.7	102.6	105.7	104.6	104.2	107.0
Gasoline service stations	554	103.0	105.2	102.6	104.3	109.7	115.2	120.4	126.3	125.1	125.0	130.6
Men's and boys' wear stores	561	106.0	109.6	113.7	119.2	118.2	115.5	117.9	117.5	125.7	132.2	145.5
Women's clothing stores	562	97.8	99.5	101.5	103.0	112.2	118.4	119.3	128.5	142.3	145.8	154.8
Family clothing stores	565	102.0	104.9	104.5	106.4	111.7	114.5	120.4	133.8	138.8	142.1	145.6
Shoe stores	566	102.7	107.2	106.1	105.1	111.5	113.2	126.3	134.5	146.9	143.5	136.4
Miscellaneous apparel and accessory stores	569	96.3	95.2	88.6	78.8	89.1	92.9	100.4	122.1	127.1	118.1	131.0
Furniture and homefurnishings stores	571	98.6	100.9	101.8	101.5	108.4	107.6	108.8	112.0	118.6	119.4	121.6
Household appliance stores	572	98.5	103.5	102.8	105.2	113.9	117.0	121.2	138.7	141.8	155.5	184.5
Radio, television, computer, and music stores	573	118.6	114.6	119.6	128.3	137.8	152.7	177.0	196.7	204.6	215.1	258.9
Eating and drinking places	581	102.8	102.2	104.0	103.1	102.5	102.8	101.1	100.9	99.5	100.5	101.1
Drug and proprietary stores	591	101.9	102.5	103.6	104.7	103.6	105.4	105.7	106.9	109.6	115.4	117.7
Liquor stores	592	98.2	101.1	105.2	105.9	108.4	100.7	99.1	103.7	112.8	108.9	113.9
Used merchandise stores	593	105.3	104.9	100.3	98.6	110.4	112.1	115.4	117.3	129.8	138.0	158.4
Miscellaneous shopping goods stores	594	100.7	104.2	104.2	105.0	102.7	106.5	111.9	117.8	120.0	123.7	131.5
Nonstore retailers	596	105.6	110.8	108.8	109.3	122.1	127.5	143.3	146.1	165.5	177.2	193.5
Fuel dealers	598	95.6	92.0	84.4	85.3	84.4	92.7	100.7	114.2	115.8	113.4	112.0
Retail stores, n.e.c.	599	105.9	103.1	113.7	103.2	111.6	117.3	125.0	126.2	139.5	147.3	157.6
Finance and services												
Commercial banks	602	102.8	104.8	107.7	110.1	111.0	118.5	121.7	126.4	129.7	133.0	133.0
Hotels and motels	701	97.6	95.0	96.1	99.1	107.8	106.2	109.6	110.1	109.7	107.9	108.8
Laundry, cleaning, and garment services	721	97.2	99.7	101.8	99.2	98.3	98.9	104.0	105.5	108.7	108.0	113.5
Photographic studios, portrait	722	100.1	94.9	96.6	92.8	97.7	105.9	117.4	129.3	126.6	133.7	153.4
Beauty shops	723	95.1	99.6	96.8	94.8	99.6	95.7	99.8	103.5	106.3	107.5	108.4
Barber shops	724	108.8	111.6	100.2	94.1	112.1	120.8	117.7	114.6	127.6	149.0	153.0
Funeral services and crematories	726	102.5	97.9	90.9	89.5	103.2	98.2	103.8	99.7	97.1	101.3	107.0
Automotive repair shops	753	105.7	108.1	106.9	98.7	103.3	104.0	112.3	119.5	114.1	115.2	121.2
Motion picture theaters	783	107.1	114.3	115.8	116.0	110.8	109.8	106.5	101.4	100.5	99.8	101.3

[1] Refers to output per employee.

[2] Refers to ouput per full-time equivalent employee year on fiscal basis.

n.e.c. = not elsewhere classified

Dash indicates data not available.

43. Unemployment rates, approximating U.S. concepts, in nine countries, quarterly data seasonally adjusted

Country	Annual average		1998				1999			
	1998	1999	I	II	III	IV	I	II	III	IV
United States	4.5	4.2	4.7	4.4	4.5	4.4	4.3	4.3	4.2	4.1
Canada	8.3	7.6	8.6	8.3	8.2	8.1	7.9	7.8	7.6	7.0
Australia	8.0	7.2	8.1	8.0	8.1	7.7	7.5	7.4	7.1	7.0
Japan	4.1	4.7	3.7	4.2	4.3	4.5	4.7	4.8	4.8	4.7
France	11.8	11.1	12.0	11.7	11.7	11.5	11.3	11.2	11.0	10.6
Germany	9.4	9.0	9.9	9.5	9.1	9.1	9.0	9.0	9.1	9.0
Italy[1]	12.0	11.5	11.8	12.0	12.0	12.0	11.9	11.6	11.6	11.1
Sweden	8.4	7.1	8.8	8.7	8.5	7.6	7.2	7.0	7.0	7.1
United Kingdom	6.3	6.1	6.4	6.3	6.3	6.3	6.3	6.1	5.9	5.9

[1] Quarterly rates are for the first month of the quarter.

Dash indicates data not available.

NOTE: Quarterly figures for France, Germany, and the United Kingdom calculated by applying annual adjustment factors to current published data, and therefore should be viewed as less precise indicators of unemployment under U.S. concepts than the annual figures. See Notes on the data" for information on breaks in series. For further qualifications and historical data, see *Comparative Civilian Labor Force Statistics, Ten Countries, 1959–1998* (Bureau of Labor Statistics, Oct. 22, 1999).

44. Annual data: Employment status of the working-age population, approximating U.S. concepts, 10 countries

[Numbers in thousands]

Employment status and country	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Civilian labor force										
United States[1]	125,840	126,346	128,105	129,200	131,056	132,304	133,943	136,297	137,673	139,368
Canada	14,241	14,330	14,362	14,505	14,627	14,750	14,900	15,153	15,418	15,721
Australia	8,444	8,490	8,562	8,619	8,776	9,001	9,127	9,221	9,347	9,470
Japan	63,050	64,280	65,040	65,470	65,780	65,990	66,450	67,200	67,240	67,100
France	24,300	24,490	24,550	24,650	24,760	24,820	25,090	25,180	25,360	25,590
Germany[2]	29,410	39,130	39,040	39,140	39,210	39,100	39,180	39,450	39,430	–
Italy	22,670	22,940	22,910	22,570	22,450	22,460	22,570	22,680	22,960	23,130
Netherlands	6,640	6,750	6,950	7,090	7,190	7,270	7,370	7,530	7,720	–
Sweden	4,597	4,591	4,520	4,443	4,418	4,460	4,459	4,418	4,402	4,430
United Kingdom	28,730	28,610	28,410	28,310	28,280	28,480	28,620	28,760	28,870	29,090
Participation rate[3]										
United States[1]	66.5	66.2	66.4	66.3	66.6	66.6	66.8	67.1	67.1	67.1
Canada	67.1	66.5	65.7	65.4	65.2	64.9	64.7	64.9	65.1	65.6
Australia	64.6	64.1	63.9	63.6	63.9	64.6	64.6	64.3	64.4	64.2
Japan	62.6	63.2	63.4	63.3	63.1	62.9	63.0	63.2	62.8	62.4
France	56.0	56.0	55.8	55.6	55.5	55.2	55.5	55.3	55.4	55.7
Germany[2]	55.3	58.9	58.3	58.0	57.6	57.3	57.4	57.6	57.6	–
Italy	47.2	47.7	47.5	47.9	47.3	47.1	47.1	47.2	47.6	47.8
Netherlands	56.1	56.5	57.8	58.5	59.0	59.3	59.8	60.7	62.0	–
Sweden	67.4	67.0	65.7	64.5	63.7	64.1	64.0	63.3	62.8	63.2
United Kingdom	64.1	63.7	63.1	62.8	62.5	62.7	62.7	62.8	62.7	62.9
Employed										
United States[1]	118,793	117,718	118,492	120,259	123,060	124,900	126,708	129,558	131,463	133,488
Canada	13,084	12,851	12,760	12,858	13,112	13,357	13,463	13,774	14,140	14,531
Australia	7,859	7,676	7,637	7,680	7,921	8,235	8,344	8,429	8,597	8,785
Japan	61,710	62,920	63,620	63,810	63,860	63,890	64,200	64,900	64,450	63,930
France	22,100	22,140	21,990	21,740	21,710	21,890	21,960	22,060	22,390	22,760
Germany[2]	27,950	36,920	36,420	36,030	35,890	35,900	35,680	35,540	35,720	–
Italy	21,080	21,360	21,230	20,270	19,940	19,820	19,920	19,990	20,210	20,460
Netherlands	6,230	6,350	6,560	6,620	6,670	6,760	6,900	7,130	7,410	–
Sweden	4,513	4,447	4,265	4,028	3,992	4,056	4,019	3,973	4,034	4,117
United Kingdom	26,740	26,090	25,530	25,340	25,550	26,000	26,280	26,740	27,050	27,330
Employment-population ratio[4]										
United States[1]	62.8	61.7	61.5	61.7	62.5	62.9	63.2	63.8	64.1	64.3
Canada	61.7	59.7	58.4	58.0	58.4	58.8	58.5	59.0	59.7	60.6
Australia	60.1	57.9	57.0	56.6	57.7	59.1	59.1	58.8	59.2	59.6
Japan	61.3	61.8	62.0	61.7	61.3	60.9	60.9	61.0	60.2	59.4
France	50.9	50.6	49.9	49.0	48.7	48.7	48.5	48.4	48.9	49.6
Germany[2]	52.6	55.5	54.4	53.4	52.8	52.6	52.2	51.9	52.2	–
Italy	43.9	44.5	44.0	43.0	42.0	41.5	41.6	41.6	41.9	42.3
Netherlands	52.6	53.2	54.5	54.7	54.7	55.1	55.9	57.5	59.5	–
Sweden	66.1	64.9	62.0	58.5	57.6	58.3	57.7	56.9	57.6	58.7
United Kingdom	59.6	58.0	56.7	56.2	56.5	57.2	57.6	58.3	58.7	59.1
Unemployed										
United States[1]	7,047	8,628	9,613	8,940	7,996	7,404	7,236	6,739	6,210	6,210
Canada	1,157	1,480	1,602	1,647	1,515	1,393	1,437	1,379	1,277	1,190
Australia	585	814	925	939	856	766	783	791	750	685
Japan	1,340	1,360	1,420	1,660	1,920	2,100	2,250	2,300	2,790	3,170
France	2,210	2,350	2,560	2,910	3,050	2,920	3,130	3,120	2,980	2,830
Germany[2]	1,460	2,210	2,620	3,110	3,320	3,200	3,500	3,910	3,710	–
Italy	1,590	1,580	1,680	2,300	2,510	2,640	2,650	2,690	2,750	2,670
Netherlands	410	400	390	470	520	510	470	400	310	–
Sweden	84	144	255	415	426	404	440	445	368	313
United Kingdom	1,990	2,520	2,880	2,970	2,730	2,480	2,340	2,020	1,820	1,760
Unemployment rate										
United States[1]	5.6	6.8	7.5	6.9	6.1	5.6	5.4	4.9	4.5	4.2
Canada	8.1	10.3	11.2	11.4	10.4	9.4	9.6	9.1	8.3	7.6
Australia	6.9	9.6	10.8	10.9	9.7	8.5	8.6	8.6	8.0	7.2
Japan	2.1	2.1	2.2	2.5	2.9	3.2	3.4	3.4	4.1	4.7
France	9.1	9.6	10.4	11.8	12.3	11.8	12.5	12.4	11.8	11.1
Germany[2]	5.0	5.6	6.7	7.9	8.5	8.2	8.9	9.9	9.4	9.0
Italy	7.0	6.9	7.3	10.2	11.2	11.8	11.7	11.9	12.0	11.5
Netherlands	6.2	5.9	5.6	6.6	7.2	7.0	6.4	5.3	4.0	–
Sweden	1.8	3.1	5.6	9.3	9.6	9.1	9.9	10.1	8.4	7.1
United Kingdom	6.9	8.8	10.1	10.5	9.7	8.7	8.2	7.0	6.3	6.1

[1] Data for 1994 are not directly comparable with data for 1993 and earlier years. For additional information, see the box note under "Employment and Unemployment Data" in the notes to this section.

[2] Data from 1991 onward refer to unified Germany. See *Comparative Civilian Labor Force Statistics, Ten Countries, 1959–1998*, October 22, 1999, on the Internet at **http://stats.bls.gov/flsdata.htm**.

[3] Labor force as a percent of the working-age population.

[4] Employment as a percent of the working-age population.

NOTE: See "Notes on the data" for information on breaks in series for the United States, France, Germany, Italy, the Netherlands, and Sweden. Dash indicates data not available.

45. Annual indexes of manufacturing productivity and related measures, 12 countries

[1992 = 100]

Item and country	1960	1970	1980	1987	1988	1989	1990	1991	1993	1994	1995	1996	1997	1998
Output per hour														
United States	–	–	71.9	94.4	98.0	97.1	97.8	98.3	102.1	108.3	114.9	117.3	122.1	127.9
Canada	40.7	59.2	75.3	91.3	91.1	92.4	95.3	95.1	102.5	106.2	108.9	107.3	111.0	111.7
Japan	14.0	38.0	63.9	81.2	84.8	89.5	95.4	99.4	100.5	101.8	109.3	115.8	121.4	120.4
Belgium	18.0	32.9	65.4	88.9	92.0	96.9	96.8	99.1	102.5	108.4	113.2	114.7	121.8	122.6
Denmark	29.9	52.7	90.3	90.6	94.1	99.6	99.1	99.6	104.5	–	–	–	–	–
France	21.8	43.1	66.7	81.8	87.4	91.9	93.5	96.9	100.6	108.5	114.4	114.9	123.2	127.4
Germany	29.2	52.0	77.2	88.1	91.5	94.6	99.0	101.9	100.6	107.9	111.2	115.1	121.8	127.1
Italy	19.6	36.8	64.1	85.1	86.7	89.4	92.5	95.2	102.9	105.6	109.3	110.3	113.4	113.6
Netherlands	18.6	38.1	69.2	91.6	93.7	97.1	98.6	99.6	101.4	112.7	117.7	119.7	125.7	127.8
Norway	36.7	57.8	76.7	93.3	92.1	94.6	96.6	97.5	100.6	101.4	102.0	102.0	101.9	104.1
Sweden	27.6	52.8	74.0	90.1	90.8	93.8	95.0	95.0	106.7	116.1	122.4	125.4	133.6	136.5
United Kingdom	31.2	44.7	56.1	79.4	82.3	86.2	88.3	92.2	104.0	106.8	104.8	103.2	104.0	105.1
Output														
United States	–	–	77.3	97.9	104.5	104.0	102.5	98.7	103.5	112.2	119.6	121.6	128.8	135.0
Canada	34.2	60.5	85.4	103.2	109.3	110.8	106.6	98.8	105.1	113.2	118.8	120.2	128.0	133.0
Japan	10.7	38.8	59.9	78.4	84.6	90.2	96.3	101.4	96.0	95.4	100.6	106.7	111.1	103.6
Belgium	30.7	57.6	78.2	88.8	93.3	99.1	101.0	100.7	97.0	101.4	104.2	104.2	109.0	111.8
Denmark	40.8	68.0	91.3	99.3	100.8	104.3	102.7	101.7	99.0	109.3	114.7	117.8	120.3	126.5
France	31.0	64.1	88.7	87.2	92.2	97.2	99.1	99.8	95.7	100.3	104.8	104.5	110.2	114.6
Germany	41.5	70.9	85.3	88.0	90.9	94.0	99.1	102.8	91.8	93.5	93.7	92.5	95.8	100.7
Italy	21.4	44.7	78.4	88.2	94.5	98.1	99.6	99.2	96.4	102.2	107.2	106.7	110.4	112.5
Netherlands	31.7	59.5	77.4	89.5	92.8	96.9	100.1	100.6	98.2	104.2	107.8	108.4	114.1	116.6
Norway	56.5	89.1	103.6	110.7	105.3	101.3	100.2	98.3	102.7	106.7	109.0	110.1	113.3	116.4
Sweden	46.5	81.7	91.8	107.7	110.2	111.6	110.6	103.6	101.3	115.7	130.1	132.9	140.3	146.4
United Kingdom	67.7	90.3	87.2	94.4	101.4	105.4	105.3	100.0	101.4	106.1	107.8	108.2	109.6	110.0
Total hours														
United States	92.1	104.4	107.5	103.8	106.6	107.1	104.8	100.4	101.4	103.6	104.0	103.7	105.5	105.6
Canada	84.1	102.1	113.5	113.0	120.0	119.9	111.9	103.8	102.6	106.6	109.1	112.0	115.4	119.0
Japan	76.3	102.3	93.8	96.6	99.8	100.8	100.9	102.0	95.6	93.7	92.0	92.2	91.5	86.1
Belgium	170.7	174.7	119.7	100.0	101.5	102.3	104.3	101.5	94.7	93.6	92.0	90.8	89.5	91.2
Denmark	136.5	129.0	101.1	109.6	107.2	104.7	103.7	102.1	94.8	–	–	–	–	–
France	142.1	148.7	133.1	106.6	105.5	105.8	105.9	103.0	95.1	92.4	91.6	91.0	89.5	89.9
Germany	142.3	136.3	110.5	99.9	99.3	99.3	100.1	100.9	91.3	86.7	84.3	80.4	78.6	79.3
Italy	109.0	121.2	122.4	103.6	108.9	109.7	107.7	104.2	93.6	96.7	98.0	96.7	97.4	99.0
Netherlands	170.6	156.2	111.8	97.7	99.0	99.8	101.5	101.0	96.9	92.4	91.6	90.5	90.8	91.2
Norway	154.0	154.3	135.0	118.6	114.3	107.1	103.7	100.8	102.1	105.2	106.9	107.9	111.1	111.9
Sweden	168.3	154.7	124.0	119.5	121.4	119.0	116.4	109.0	94.9	99.6	106.3	106.0	105.0	107.3
United Kingdom	217.3	202.1	155.3	118.9	123.2	122.3	119.2	108.5	97.5	99.4	102.9	104.8	105.4	104.7
Compensation per hour														
United States	14.9	23.7	55.6	80.7	84.0	86.6	90.8	95.6	102.7	105.6	107.9	109.3	113.4	119.4
Canada	10.4	17.8	47.7	75.3	77.8	82.5	89.5	94.7	99.6	100.4	103.6	102.8	106.7	110.8
Japan	4.3	16.5	58.6	77.9	79.2	84.2	90.7	95.9	104.6	106.7	109.5	110.9	113.9	115.8
Belgium	5.4	13.7	52.5	79.7	81.1	85.9	90.1	97.3	104.8	106.1	109.2	112.0	115.2	116.0
Denmark	4.6	13.3	49.6	80.1	82.9	87.7	92.7	95.9	104.6	–	–	–	–	–
France	4.3	10.3	40.8	78.6	81.6	86.0	90.6	96.2	102.8	105.0	107.6	109.5	112.3	113.9
Germany	8.1	20.7	53.6	76.0	79.1	83.2	89.4	95.1	105.9	111.7	117.7	123.7	126.6	127.6
Italy	1.6	4.7	28.2	66.7	69.3	75.9	84.4	93.6	107.5	107.8	112.8	120.9	125.9	124.8
Netherlands	6.4	20.2	64.4	87.8	87.7	88.5	90.8	95.2	103.7	108.2	110.6	113.2	115.8	118.3
Norway	4.7	11.8	39.0	78.5	83.3	87.2	92.3	97.5	101.5	104.4	109.2	113.6	119.1	126.4
Sweden	4.1	10.8	37.4	67.3	71.7	79.4	87.6	95.4	98.0	101.1	106.2	113.4	118.3	121.5
United Kingdom	3.1	6.3	33.2	64.8	67.7	72.9	80.9	90.5	104.3	106.5	107.4	108.2	111.4	117.8
Unit labor costs: National currency basis														
United States	–	–	77.2	85.5	85.7	89.2	92.8	97.2	100.6	97.6	93.9	93.2	92.9	93.4
Canada	25.5	30.0	63.3	82.5	85.5	89.2	93.9	99.6	97.2	94.5	95.2	95.8	96.2	99.2
Japan	30.9	43.3	91.7	96.0	93.4	94.0	95.0	96.5	104.1	104.9	100.1	95.8	93.8	96.2
Belgium	30.1	41.7	80.3	89.7	88.1	88.7	93.0	98.1	102.3	97.9	96.4	97.6	94.6	94.7
Denmark	15.4	25.2	55.0	88.4	88.2	88.1	93.6	96.3	100.1	93.0	93.8	92.7	95.9	94.0
France	19.5	24.0	61.2	96.2	93.4	93.6	96.8	99.3	102.2	96.8	94.1	95.3	91.2	89.4
Germany	27.8	39.8	69.4	86.3	86.5	87.9	90.3	93.3	105.3	103.6	105.9	107.5	103.9	100.4
Italy	8.0	12.7	44.0	78.3	79.9	84.9	91.3	98.4	104.4	102.1	103.2	109.6	111.1	109.8
Netherlands	34.4	52.9	93.0	95.9	93.6	91.1	92.1	95.5	102.3	96.0	94.0	94.6	92.2	92.5
Norway	12.9	20.4	50.8	84.1	90.4	92.2	95.6	100.0	100.9	102.9	107.1	111.4	116.9	121.4
Sweden	14.9	20.5	50.6	74.7	79.0	84.7	92.3	100.4	91.8	87.0	86.8	90.4	88.5	89.0
United Kingdom	9.8	14.1	59.1	81.6	82.2	84.6	91.6	98.2	100.3	99.7	102.5	104.8	107.1	112.1
Unit labor costs: U.S. dollar basis														
United States	–	–	77.2	85.5	85.7	89.2	92.8	97.2	100.6	97.6	93.9	93.2	92.9	93.4
Canada	31.8	34.7	65.4	75.2	83.9	91.0	97.2	105.0	91.1	83.6	83.8	84.9	83.9	80.8
Japan	10.9	15.3	51.3	84.2	92.4	86.3	83.1	90.9	118.8	130.1	135.1	111.7	98.3	93.1
Belgium	19.4	27.0	88.3	77.2	77.0	72.3	89.5	92.3	95.1	94.2	105.2	101.4	84.9	83.8
Denmark	13.5	20.3	58.9	77.9	79.0	72.6	91.3	90.8	93.2	88.3	101.1	96.5	87.6	84.7
France	21.1	23.0	76.7	84.7	82.9	77.7	94.1	93.1	95.5	92.4	99.9	98.6	82.6	80.2
Germany	10.4	17.1	59.6	74.9	76.9	73.0	87.3	87.8	99.4	99.8	115.5	111.6	93.5	89.1
Italy	16.0	24.9	63.3	74.4	75.6	76.2	93.8	97.6	81.8	78.1	78.0	87.5	80.3	77.9
Netherlands	16.0	25.7	82.3	83.2	83.2	75.5	88.9	89.8	96.8	92.8	103.0	98.6	83.0	82.0
Norway	11.3	17.8	63.9	77.5	86.1	82.9	95.0	95.7	88.3	90.7	105.0	107.1	102.5	99.9
Sweden	16.8	23.0	69.6	68.5	75.0	76.4	90.8	96.6	68.6	65.7	70.8	78.5	67.5	65.2
United Kingdom	15.6	19.2	77.8	75.7	82.9	78.5	92.5	98.2	85.3	86.5	91.6	95.6	99.3	105.2

– Data not available.

46. Occupational injury and illness rates by industry,[1] United States

Industry and type of case[2]	Incidence rates per 100 full-time workers[3]											
	1987	1988	1989[1]	1990	1991	1992	1993[4]	1994[4]	1995[4]	1996[4]	1997[4]	1998[4]
PRIVATE SECTOR[5]												
Total cases	8.3	8.6	8.6	8.8	8.4	8.9	8.5	8.4	8.1	7.4	7.1	6.7
Lost workday cases	3.8	4.0	4.0	4.1	3.9	3.9	3.8	3.8	3.6	3.4	3.3	3.1
Lost workdays	69.9	76.1	78.7	84.0	86.5	93.8	–	–	–	–	–	–
Agriculture, forestry, and fishing[6]												
Total cases	11.2	10.9	10.9	11.6	10.8	11.6	11.2	10.0	9.7	8.7	8.4	7.9
Lost workday cases	5.7	5.6	5.7	5.9	5.4	5.4	5.0	4.7	4.3	3.9	4.1	3.9
Lost workdays	94.1	101.8	100.9	112.2	108.3	126.9	–	–	–	–	–	–
Mining												
Total cases	8.5	8.8	8.5	8.3	7.4	7.3	6.8	6.3	6.2	5.4	5.9	4.9
Lost workday cases	4.9	5.1	4.8	5.0	4.5	4.1	3.9	3.9	3.9	3.2	3.7	2.9
Lost workdays	144.0	152.1	137.2	119.5	129.6	204.7	–	–	–	–	–	–
Construction												
Total cases	14.7	14.6	14.3	14.2	13.0	13.1	12.2	11.8	10.6	9.9	9.5	8.8
Lost workday cases	6.8	6.8	6.8	6.7	6.1	5.8	5.5	5.5	4.9	4.5	4.4	4.0
Lost workdays	135.8	142.2	143.3	147.9	148.1	161.9	–	–	–	–	–	–
General building contractors:												
Total cases	14.2	14.0	13.9	13.4	12.0	12.2	11.5	10.9	9.8	9.0	8.5	8.4
Lost workday cases	6.5	6.4	6.5	6.4	5.5	5.4	5.1	5.1	4.4	4.0	3.7	3.9
Lost workdays	134.0	132.2	137.3	137.6	132.0	142.7	–	–	–	–	–	–
Heavy construction, except building:												
Total cases	14.5	15.1	13.8	13.8	12.8	12.1	11.1	10.2	9.9	9.0	8.7	8.2
Lost workday cases	6.4	7.0	6.5	6.3	6.0	5.4	5.1	5.0	4.8	4.3	4.3	4.1
Lost workdays	139.1	162.3	147.1	144.6	160.1	165.8	–	–	–	–	–	–
Special trades contractors:												
Total cases	15.0	14.7	14.6	14.7	13.5	13.8	12.8	12.5	11.1	10.4	10.0	9.1
Lost workday cases	7.1	7.0	6.9	6.9	6.3	6.1	5.8	5.8	5.0	4.8	4.7	4.1
Lost workdays	135.7	141.1	144.9	153.1	151.3	168.3	–	–	–	–	–	–
Manufacturing												
Total cases	11.9	13.1	13.1	13.2	12.7	12.5	12.1	12.2	11.6	10.6	10.3	9.7
Lost workday cases	5.3	5.7	5.8	5.8	5.6	5.4	5.3	5.5	5.3	4.9	4.8	4.7
Lost workdays	95.5	107.4	113.0	120.7	121.5	124.6	–	–	–	–	–	–
Durable goods:												
Total cases	12.5	14.2	14.1	14.2	13.6	13.4	13.1	13.5	12.8	11.6	11.3	10.7
Lost workday cases	5.4	5.9	6.0	6.0	5.7	5.5	5.4	5.7	5.6	5.1	5.1	5.0
Lost workdays	96.8	111.1	116.5	123.3	122.9	126.7	–	–	–	–	–	–
Lumber and wood products:												
Total cases	18.9	19.5	18.4	18.1	16.8	16.3	15.9	15.7	14.9	14.2	13.5	13.2
Lost workday cases	9.6	10.0	9.4	8.8	8.3	7.6	7.6	7.7	7.0	6.8	6.5	6.8
Lost workdays	176.5	189.1	177.5	172.5	172.0	165.8	–	–	–	–	–	–
Furniture and fixtures:												
Total cases	15.4	16.6	16.1	16.9	15.9	14.8	14.6	15.0	13.9	12.2	12.0	11.4
Lost workday cases	6.7	7.3	7.2	7.8	7.2	6.6	6.5	7.0	6.4	5.4	5.8	5.7
Lost workdays	103.6	115.7	–	–	–	128.4	–	–	–	–	–	–
Stone, clay, and glass products:												
Total cases	14.9	16.0	15.5	15.4	14.8	13.6	13.8	13.2	12.3	12.4	11.8	11.8
Lost workday cases	7.1	7.5	7.4	7.3	6.8	6.1	6.3	6.5	5.7	6.0	5.7	6.0
Lost workdays	135.8	141.0	149.8	160.5	156.0	152.2	–	–	–	–	–	–
Primary metal industries:												
Total cases	17.0	19.4	18.7	19.0	17.7	17.5	17.0	16.8	16.5	15.0	15.0	14.0
Lost workday cases	7.4	8.2	8.1	8.1	7.4	7.1	7.3	7.2	7.2	6.8	7.2	7.0
Lost workdays	145.8	161.3	168.3	180.2	169.1	175.5	–	–	–	–	–	–
Fabricated metal products:												
Total cases	17.0	18.8	18.5	18.7	17.4	16.8	16.2	16.4	15.8	14.4	14.2	13.9
Lost workday cases	7.2	8.0	7.9	7.9	7.1	6.6	6.7	6.7	6.9	6.2	6.4	6.5
Lost workdays	121.9	138.8	147.6	155.7	146.6	144.0	–	–	–	–	–	–
Industrial machinery and equipment:												
Total cases	11.3	12.1	12.1	12.0	11.2	11.1	11.1	11.6	11.2	9.9	10.0	9.5
Lost workday cases	4.4	4.7	4.8	4.7	4.4	4.2	4.2	4.4	4.4	4.0	4.1	4.0
Lost workdays	72.7	82.8	86.8	88.9	86.6	87.7	–	–	–	–	–	–
Electronic and other electrical equipment:												
Total cases	7.2	8.0	9.1	9.1	8.6	8.4	8.3	8.3	7.6	6.8	6.6	5.9
Lost workday cases	3.1	3.3	3.9	3.8	3.7	3.6	3.5	3.6	3.3	3.1	3.1	2.8
Lost workdays	55.9	64.6	77.5	79.4	83.0	81.2	–	–	–	–	–	–
Transportation equipment:												
Total cases	13.5	17.7	17.7	17.8	18.3	18.7	18.5	19.6	18.6	16.3	15.4	14.6
Lost workday cases	5.7	6.6	6.8	6.9	7.0	7.1	7.1	7.8	7.9	7.0	6.6	6.6
Lost workdays	105.7	134.2	138.6	153.7	166.1	186.6	–	–	–	–	–	–
Instruments and related products:												
Total cases	5.8	6.1	5.8	5.9	6.0	5.9	5.6	5.9	5.3	5.1	4.8	4.0
Lost workday cases	2.4	2.6	2.5	2.7	2.7	2.7	2.5	2.7	2.4	2.3	2.3	1.9
Lost workdays	43.9	51.5	55.4	57.8	64.4	65.3	–	–	–	–	–	–
Miscellaneous manufacturing industries:												
Total cases	10.7	11.3	11.1	11.3	11.3	10.7	10.0	9.9	9.1	9.5	8.9	8.1
Lost workday cases	4.6	5.1	5.1	5.1	5.1	5.0	4.6	4.5	4.3	4.4	4.2	3.9
Lost workdays	81.5	91.0	97.6	113.1	104.0	108.2	–	–	–	–	–	–

See footnotes at end of table.

46. Continued—Occupational injury and illness rates by industry,[1] United States

Industry and type of case[2]	Incidence rates per 100 full-time workers[3]											
	1987	1988	1989 [1]	1990	1991	1992	1993 [4]	1994 [4]	1995 [4]	1996 [4]	1997 [4]	1998 [4]
Nondurable goods:												
Total cases	11.1	11.4	11.6	11.7	11.5	11.3	10.7	10.5	9.9	9.2	8.8	8.2
Lost workday cases	5.1	5.4	5.5	5.6	5.5	5.3	5.0	5.1	4.9	4.6	4.4	4.3
Lost workdays	93.5	101.7	107.8	116.9	119.7	121.8	–	–	–	–	–	–
Food and kindred products:												
Total cases	17.7	18.5	18.5	20.0	19.5	18.8	17.6	17.1	16.3	15.0	14.5	13.6
Lost workday cases	8.6	9.2	9.3	9.9	9.9	9.5	8.9	9.2	8.7	8.0	8.0	7.5
Lost workdays	153.7	169.7	174.7	202.6	207.2	211.9	–	–	–	–	–	–
Tobacco products:												
Total cases	8.6	9.3	8.7	7.7	6.4	6.0	5.8	5.3	5.6	6.7	5.9	6.4
Lost workday cases	2.5	2.9	3.4	3.2	2.8	2.4	2.3	2.4	2.6	2.8	2.7	3.1
Lost workdays	46.4	53.0	64.2	62.3	52.0	42.9	–	–	–	–	–	–
Textile mill products:												
Total cases	9.0	9.6	10.3	9.6	10.1	9.9	9.7	8.7	8.2	7.8	6.7	6.7
Lost workday cases	3.6	4.0	4.2	4.0	4.4	4.2	4.1	4.0	4.1	3.6	3.1	3.4
Lost workdays	65.9	78.8	81.4	85.1	88.3	87.1	–	–	–	–	–	–
Apparel and other textile products:												
Total cases	7.4	8.1	8.6	8.8	9.2	9.5	9.0	8.9	8.2	7.4	7.0	6.2
Lost workday cases	3.1	3.5	3.8	3.9	4.2	4.0	3.8	3.9	3.6	3.3	3.1	2.6
Lost workdays	59.5	68.2	80.5	92.1	99.9	104.6	–	–	–	–	–	–
Paper and allied products:												
Total cases	12.8	13.1	12.7	12.1	11.2	11.0	9.9	9.6	8.5	7.9	7.3	7.1
Lost workday cases	5.8	5.9	5.8	5.5	5.0	5.0	4.6	4.5	4.2	3.8	3.7	3.7
Lost workdays	122.3	124.3	132.9	124.8	122.7	125.9	–	–	–	–	–	–
Printing and publishing:												
Total cases	6.7	6.6	6.9	6.9	6.7	7.3	6.9	6.7	6.4	6.0	5.7	5.4
Lost workday cases	3.1	3.2	3.3	3.3	3.2	3.2	3.1	3.0	3.0	2.8	2.7	2.8
Lost workdays	55.1	59.8	63.8	69.8	74.5	74.8	–	–	–	–	–	–
Chemicals and allied products:												
Total cases	7.0	7.0	7.0	6.5	6.4	6.0	5.9	5.7	5.5	4.8	4.8	4.2
Lost workday cases	3.1	3.3	3.2	3.1	3.1	2.8	2.7	2.8	2.7	2.4	2.3	2.1
Lost workdays	58.8	59.0	63.4	61.6	62.4	64.2	–	–	–	–	–	–
Petroleum and coal products:												
Total cases	7.3	7.0	6.6	6.6	6.2	5.9	5.2	4.7	4.8	4.6	4.3	3.9
Lost workday cases	3.1	3.2	3.3	3.1	2.9	2.8	2.5	2.3	2.4	2.5	2.2	1.8
Lost workdays	65.9	68.4	68.1	77.3	68.2	71.2	–	–	–	–	–	–
Rubber and miscellaneous plastics products:												
Total cases	15.9	16.3	16.2	16.2	15.1	14.5	13.9	14.0	12.9	12.3	11.9	11.2
Lost workday cases	7.6	8.1	8.0	7.8	7.2	6.8	6.5	6.7	6.5	6.3	5.8	5.8
Lost workdays	130.8	142.9	147.2	151.3	150.9	153.3	–	–	–	–	–	–
Leather and leather products:												
Total cases	12.4	11.4	13.6	12.1	12.5	12.1	12.1	12.0	11.4	10.7	10.6	9.8
Lost workday cases	5.8	5.6	6.5	5.9	5.9	5.4	5.5	5.3	4.8	4.5	4.3	4.5
Lost workdays	114.5	128.2	130.4	152.3	140.8	128.5	–	–	–	–	–	–
Transportation and public utilities												
Total cases	8.4	8.9	9.2	9.6	9.3	9.1	9.5	9.3	9.1	8.7	8.2	7.3
Lost workday cases	4.9	5.1	5.3	5.5	5.4	5.1	5.4	5.5	5.2	5.1	4.8	4.3
Lost workdays	108.1	118.6	121.5	134.1	140.0	144.0	–	–	–	–	–	–
Wholesale and retail trade												
Total cases	7.7	7.8	8.0	7.9	7.6	8.4	8.1	7.9	7.5	6.8	6.7	6.5
Lost workday cases	3.4	3.5	3.6	3.5	3.4	3.5	3.4	3.4	3.2	2.9	3.0	2.8
Lost workdays	56.1	60.9	63.5	65.6	72.0	80.1	–	–	–	–	–	–
Wholesale trade:												
Total cases	7.4	7.6	7.7	7.4	7.2	7.6	7.8	7.7	7.5	6.6	6.5	6.5
Lost workday cases	3.7	3.8	4.0	3.7	3.7	3.6	3.7	3.8	3.6	3.4	3.2	3.3
Lost workdays	64.0	69.2	71.9	71.5	79.2	82.4	–	–	–	–	–	–
Retail trade:												
Total cases	7.8	7.9	8.1	8.1	7.7	8.7	8.2	7.9	7.5	6.9	6.8	6.5
Lost workday cases	3.3	3.4	3.4	3.4	3.3	3.4	3.3	3.3	3.0	2.8	2.9	2.7
Lost workdays	52.9	57.6	60.0	63.2	69.1	79.2	–	–	–	–	–	–
Finance, insurance, and real estate												
Total cases	2.0	2.0	2.0	2.4	2.4	2.9	2.9	2.7	2.6	2.4	2.2	1.9
Lost workday cases	.9	.9	.9	1.1	1.1	1.2	1.2	1.1	1.0	.9	0.9	0.7
Lost workdays	14.3	17.2	17.6	27.3	24.1	32.9	–	–	–	–	–	–
Services												
Total cases	5.5	5.4	5.5	6.0	6.2	7.1	6.7	6.5	6.4	6.0	5.6	5.2
Lost workday cases	2.7	2.6	2.7	2.8	2.8	3.0	2.8	2.8	2.8	2.6	2.5	2.4
Lost workdays	45.8	47.7	51.2	56.4	60.0	68.6	–	–	–	–	–	–

[1] Data for 1989 and subsequent years are based on the *Standard Industrial Classification Manual*, 1987 Edition. For this reason, they are not strictly comparable with data for the years 1985–88, which were based on the *Standard Industrial Classification Manual*, 1972 Edition, 1977 Supplement.

[2] Beginning with the 1992 survey, the annual survey measures only nonfatal injuries and illnesses, while past surveys covered both fatal and nonfatal incidents. To better address fatalities, a basic element of workplace safety, BLS implemented the Census of Fatal Occupational Injuries.

[3] The incidence rates represent the number of injuries and illnesses or lost workdays per 100 full-time workers and were calculated as (N/EH) X 200,000, where:

N = number of injuries and illnesses or lost workdays;

EH = total hours worked by all employees during the calendar year; and

200,000 = base for 100 full-time equivalent workers (working 40 hours per week, 50 weeks per year).

[4] Beginning with the 1993 survey, lost workday estimates will not be generated. As of 1992, BLS began generating percent distributions and the median number of days away from work by industry and for groups of workers sustaining similar work disabilities.

[5] Excludes farms with fewer than 11 employees since 1976.

– Data not available.

47. Fatal occupational injuries by event or exposure, 1993–98

Event or exposure[1]	Fatalities			
	1993–97	1997[2]	1998	
	Average	Number	Number	Percent
Total	6,335	6,238	6,026	100
Transportation incidents	2,611	2,605	2,630	44
Highway incident	1,334	1,393	1,431	24
Collision between vehicles, mobile equipment	652	640	701	12
Moving in same direction	109	103	118	2
Moving in opposite directions, oncoming	234	230	271	4
Moving in intersection	132	142	142	2
Vehicle struck stationary object or equipment	249	282	306	5
Noncollision incident	360	387	373	6
Jackknifed or overturned—no collision	267	298	300	5
Nonhighway (farm, industrial premises) incident	388	377	384	6
Overturned	214	216	216	4
Aircraft	315	261	223	4
Worker struck by a vehicle	373	367	413	7
Water vehicle incident	106	109	112	2
Railway	83	93	60	1
Assaults and violent acts	1,241	1,111	960	16
Homicides	995	860	709	12
Shooting	810	708	569	9
Stabbing	75	73	61	1
Other, including bombing	110	79	79	1
Self-inflicted injuries	215	216	223	4
Contact with objects and equipment	1,005	1,035	941	16
Struck by object	573	579	517	9
Struck by falling object	369	384	317	5
Struck by flying object	65	54	58	1
Caught in or compressed by equipment or objects	290	320	266	4
Caught in running equipment or machinery	153	189	129	2
Caught in or crushed in collapsing materials	124	118	140	2
Falls	668	716	702	12
Fall to lower level	591	653	623	10
Fall from ladder	94	116	111	2
Fall from roof	139	154	156	3
Fall from scaffold, staging	83	87	97	2
Fall on same level	52	44	51	1
Exposure to harmful substances or environments	586	554	572	9
Contact with electric current	320	298	334	6
Contact with overhead power lines	128	138	153	3
Contact with temperature extremes	43	40	46	1
Exposure to caustic, noxious, or allergenic substances	120	123	104	2
Inhalation of substances	70	59	48	1
Oxygen deficiency	101	90	87	1
Drowning, submersion	80	72	75	1
Fires and explosions	199	196	205	3
Other events or exposures[3]	26	21	16	-

[1] Based on the 1992 BLS Occupational Injury and Illness Classification Structures.

[2] The BLS news release issued August 12, 1998, reported a total of 6,218 fatal work injuries for calendar year 1997. Since then, an additional 20 job-related fatalities were identified, bringing the total job-related fatality count for 1997 to 6,238.

[3] Includes the category "Bodily reaction and exertion."

NOTE: Totals for major categories may include subcategories not shown separately. Percentages may not add to totals because of rounding. Dash indicates less than 0.5 percent.

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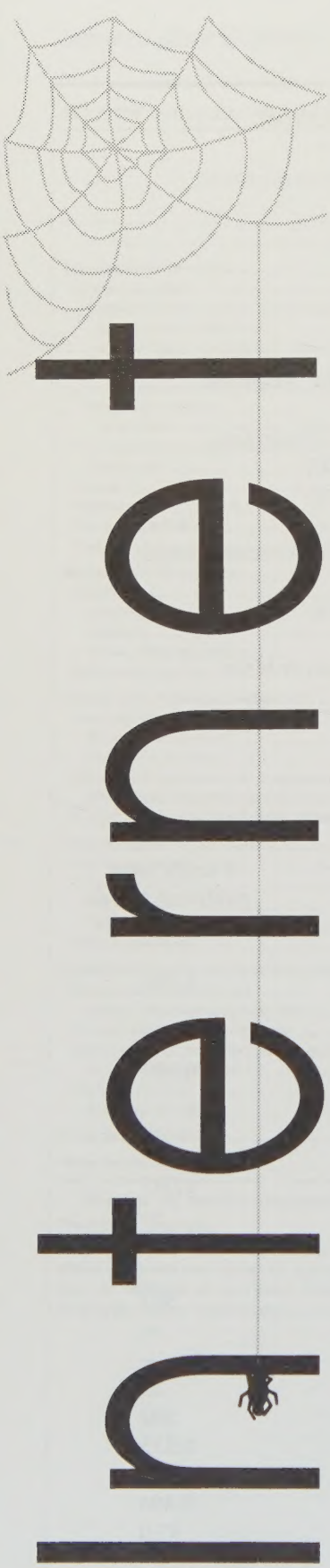
I certify that the statements made by me above are correct and complete.

[signed] Richard M. Devens, Executive Editor



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Employment Projections ..... http://stats.bls.gov/emphome.htm

International data:

Foreign labor statistics	http://stats.bls.gov/flshome.htm
U.S. import and export price indexes	http://stats.bls.gov/ipphome.htm

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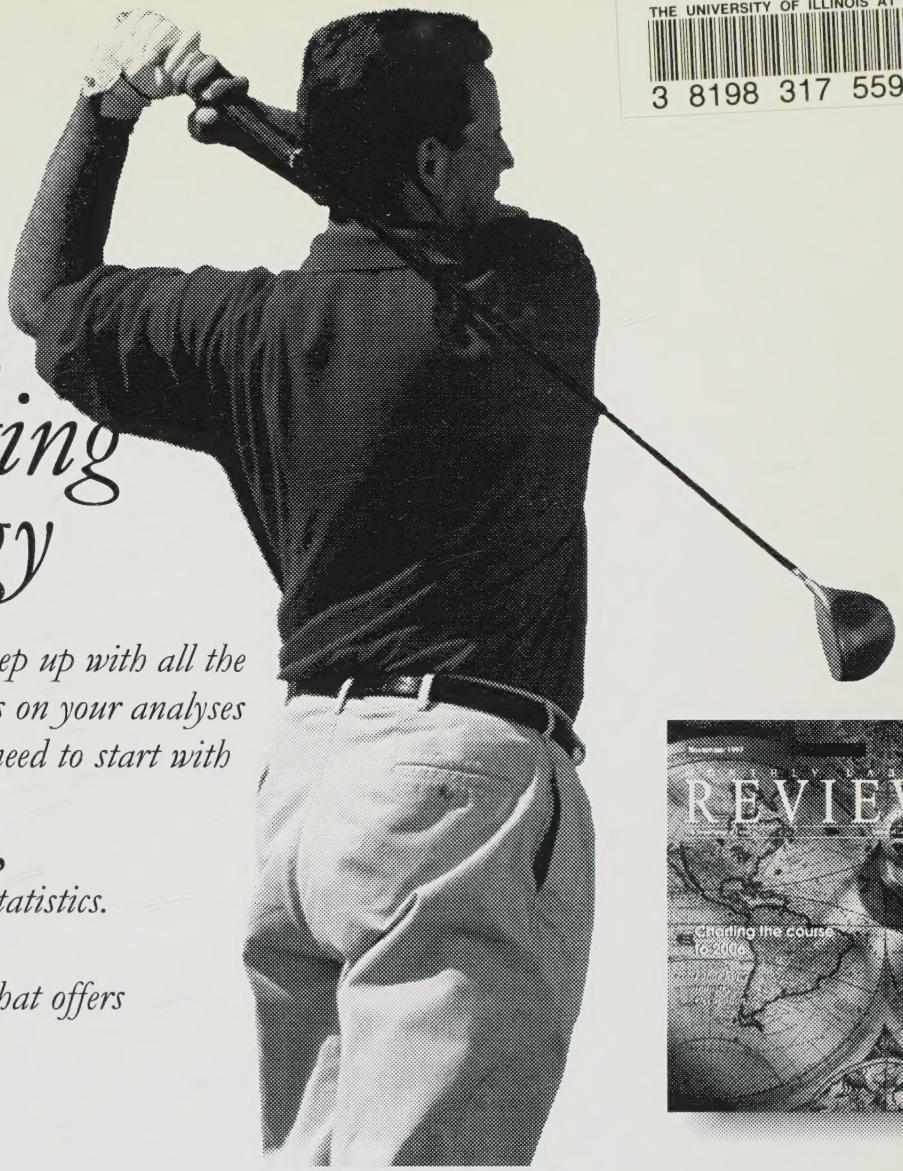

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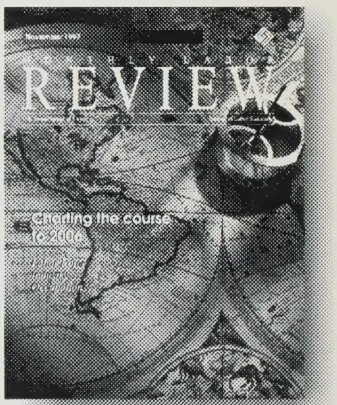

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Schedule of release dates for BLS statistical series

Series	Release date	Period covered	Release date	Period covered	Release date	Period covered	MLR table number
Employment situation	October 6	September	November 3	October	December 8	November	1; 4–20
Productivity and costs			November 2	3rd quarter	December 6	3rd quarter	2; 39–42
U.S. Import and Export Price Indexes	October 12	September	November 8	October	December 13	November	34–38
Producer Price Indexes	October 13	September	November 9	October	December 14	November	2; 31–33
Consumer Price indexes	October 18	September	November 16	October	December 15	November	2; 28–30
Real earnings	October 18	September	November 16	October	December 15	November	14, 16
Employment Cost Indexes	October 26	3rd quarter					1–3; 21–24